UNITED STATES DEPARTMENT OF LABOR
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BUREAU OF LABOR STATISTICS
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MONTHLY
LABOR REVIEW

VOLUME 32 NUMBER 5

MAY, 1931

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON: 1931

For sale by the Superintendent of Documents, Washington, D. C. - - - - Price 15 cents per copy
Subscription price per year, United States, Canada, Mexico, $1.50; other countries, $2.25

CERTIFICATE

This publication is issued pursuant to the provisions of the sundry civil act (41 Stats. 1430) approved March 4, 1921.

Contents

This Issue in Brief

Combined figures for 30 manufacturing industries show an increase in accident frequency rates of 3 per cent in 1929 as compared with 1928, and a decrease of 4 per cent in accident severity rates, but both frequency and severity rates show a substantial reduction from the rates for 1926. Page 1.

In Vienna the housing of the working people is the concern of the municipality. The city housing policy was inaugurated shortly after the end of the war, when the housing situation had become acute and private enterprise proved inadequate to meet the need. Altogether the city has constructed some 45,000 dwellings for the working class, which it rents at nominal rates. Although some houses of the 1-family type or larger are built each year, the majority of dwellings provided are in large apartment buildings. The funds for the erection of dwellings are drawn from current tax receipts. Page 6.

A summary of earnings and hours in various industries for which studies have been made by the United States Bureau of Labor Statistics is given on page 136, the data in some cases going back as far as 1914. In the industries for which comparative figures are given back to 1914—boots and shoes, cotton goods, hosiery and underwear, iron and steel, men's clothing, and woolen and worsted goods—hourly earnings in 1914 ranged from 15.3 cents in the cotton-goods industry to 30.1 cents in the iron and steel industry; the range in these industries in 1930 (excluding the iron and steel industry, for which 1930 data were not available) was from 32.5 cents in the cotton-goods industry to 70.1 cents in the men's clothing industry.

The general level of farm wage rates in the United States on April 1, 1931, was the lowest recorded by the United States Department of Agriculture since 1916, and was 35 points under the figure for April 1, 1930. The demand for farm labor was 71.1 per cent of normal on April 1, 1931, as compared with 84.8 per cent on April 1, 1930, while the supply was 112.9 per cent of normal as compared with 99 per cent on April 1, 1930. Page 141.

Under the employees' participation and investment plan of the Kansas City Public Service Co., Kansas City, Mo., the stockholders set aside 25 per cent of the net income of the company for increased compensation of the employees. The plan became effective January 1, 1931. Page 37.

The education and training of the deaf, their placement in industry, and the variety of jobs in which they have been successful are reported upon by the division for the deaf of the Minnesota Industrial Commission. The favorable attitude of a number of employers of deaf workers toward these members of their personnel is also referred to and data are given on causes of deafness and ages at which hearing was lost. Page 77.

Provisions for minimum pay for any fraction of a day's work, and for pay for reporting time when no work is furnished, appear in a large number of collective agreements. A few provisions taken from about 800 trade agreements having one or both of these provisions are given on page 142.

Effects of prolonged unemployment upon the physical and mental well-being of workers, especially the young workers, are attracting the serious attention of public authorities, labor leaders, social workers, and others in a number of foreign countries beset with severe and prolonged unemployment. These ill-effects constitute a new complicated problem in the unemployment situation. Certain measures already have been introduced and others proposed in Great Britain, Germany, and the Netherlands, such as rehabilitative training, sports, etc. Page 25.

The Liberian Government has taken measures to free all domestic slaves, to abolish the "pawn" system, and to prohibit the recruiting of contract labor for foreign employment. This announcement was made by that Government within a month after the receipt of the report of the International Commission of Inquiry into the Existence of Slavery and Forced Labor in the Republic of Liberia, presented in September, 1930. In December, 1930, the Liberian Legislature adopted acts along lines recommended by the commission. A summary of the findings of this body are published on page 58.

The cooperative movement has now taken root in nearly every country in the world. The cooperative movements of 41 countries are federated in the International Cooperative Alliance, which now embraces 229,890 local cooperative societies with an aggregate membership of more than 70,000,000. In addition, there are about 15,000,000 persons who belong to cooperative credit societies. These 229,890 local societies do an annual business of more than $17,000,000,000, and have share capital and reserves of more than $1,500,000,000. Page 109.

MONTHLY
LABOR REVIEW
U. S. BUREAU OF LABOR STATISTICS

VOL. 32, NO. 5 WASHINGTON MAY, 1931

Accidents in Selected Manufacturing Industries, 1926 to 1929

STATISTICS of industrial accidents in selected manufacturing groups, gathered by the Bureau of Labor Statistics, indicate that 26.94 accidents occurred in the combined groups during 1929 for every 1,000,000 man-hours worked, an increase in the frequency rate of 3 per cent, as compared with 1928. A decrease was, however, experienced in the severity rate (the number of days lost per 1,000 man-hours worked, including allowances for deaths and permanent disabilities), which was 2.42 for 1929, or 4 per cent less than for 1928. A marked decrease took place during the 4-year period, 1926 to 1929, as shown below.

ACCIDENT FREQUENCY AND SEVERITY RATES FOR 30 MANUFACTURING INDUSTRIES, 1926 TO 1929

Year	Frequency		Severity	
	Rate	Per cent of change as compared with preceding year	Rate	Per cent of change as compared with preceding year
1926	31.17		3.31	
1927	25.92	−17	2.70	−18
1928	26.13	+1	2.52	−7
1929	26.94	+3	2.42	−4

The frequency rate for the combined industries dropped from 31.17 for 1926 to 25.92 for 1927, but increased somewhat during 1928 and 1929, bringing the total reduction for the period to 14 per cent. The severity rate continued to decline, resulting in a decrease of 27 per cent for the period.

While the bureau has compiled and published statistics of accidents in selected manufacturing industries for several years, it has not attempted until now to compute frequency and severity rates for the combined industries. The information furnished by the employers on the total man-hours worked each year in each establishment is uniform in character, regardless of where the establishment is located, but the data furnished by the different States on accidents in the respective establishments vary according to the extent to which accidents are reported in the State. The majority of the States require reports of all accidents resulting in disability extending beyond the day of injury, but in some of them reports are necessary only when the disability extends beyond one week, beyond 10 days, or beyond two weeks. In others no records of temporary disabilities are

available. These variations prevent comparison of rates for industries, except within groups having the same standard of reporting, and does not permit a presentation of reliable frequency and severity rates for the combined industries in all States.

It was found, however, that the data for such States as furnished records of all disabilities extending beyond the day of injury (lost-time accidents) constitute a fairly representative cross section for each of the selected industries, although a smaller man-hour exposure is considered than is covered in the full study of the bureau. The rates computed from such data for the individual industries are also strictly comparable, because each one represents the respective hazard for the particular industry per 1,000,000 or per 1,000 man-hours worked. These rates, by extent of disability and by years, are shown in detail in the table following.

As all industries are not of equal importance, some method of weighting is necessary in the production of general rates for the combined industries. An arithmetical average would be unsatisfactory; and therefore in computing the bureau's accident frequency and severity rates for the combined manufacturing industries, the rates for the individual industries were weighted according to the number of wage earners employed in each classification covering the establishments for which data were secured, from figures furnished by the United States Bureau of the Census. This was deemed the most appropriate weight for the purpose. Detailed rates for the combined industries, by degree of disability and by years, are shown at the end of the table following.

These rates differ somewhat from the rates published by the National Safety Council in the 1930 edition of Industrial Accident Statistics. The variation is presumably due mainly to the difference in classifications included. The National Safety Council includes construction, electric railway, laundry, mining, printing and publishing, public utility, and quarry industries, as well as some mercantile establishments, and omits some of the classifications covered by the bureau. The difference may also be due to a certain extent to the weighting employed by the bureau.

The industrial accident study of the bureau for other than the iron and steel industry covered 29 manufacturing industries for 1926, 1927, and 1928. A division was possible in 1929 of the classification "lumber—sawmills," which included logging operations for the other three years, as separate figures could not be secured for these. Consequently an additional industrial classification, logging, appears for 1929, but this affects only the rates for the sawmill operations, and does not disturb the total. The iron and steel industry, data for which are obtained through a special yearly study, has previously been treated separately in the bureau publications, but is included here with the other manufacturing industries.

The basic tabulation covers approximately 16 per cent of the total wage earners in the respective industries for 1926, 23 per cent for 1927, 24 per cent for 1928, and 27 per cent for 1929.

During the period covered by the tabulation decreases in frequency rates are shown by 16 groups, while the other 14 groups show increases. Decreases and increases in severity rates are equally divided among the groups, 15 of each.

NUMBER OF ACCIDENTS AND ACCIDENT FREQUENCY AND SEVERITY RATES FOR SPECIFIED INDUSTRIES, 1926 TO 1929

[Frequency rates are based on 1,000,000 hours' exposure, severity rates on 1,000 hours' exposure]

Industry and year	Number of full-year workers reported	Death			Permanent disability			Temporary disability			Total		
		Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate
Agricultural implements:													
1926	5,126	0			39	2.54	3.08	554	36.03	0.58	593	38.57	3.66
1927	7,282	6	0.27	1.65	28	1.28	1.10	598	27.37	.46	632	28.92	3.21
1928	7,134	3	.14	.84	21	.98	.48	662	30.94	.47	686	32.06	1.79
1929 [1]	7,628	4	.18	1.05	68	2.97	3.38	800	34.96	.51	872	38.11	4.94
Automobiles:													
1926	28,360	10	.12	.71	180	2.12	5.19	2,145	25.21	.35	2,335	27.45	6.25
1927	48,886	7	.05	.29	142	.97	1.27	1,852	12.63	.23	2,001	13.65	1.79
1928	52,269	9	.06	.34	229	1.46	1.10	3,267	20.83	.33	3,505	22.35	1.77
1929 [1]	58,127	14	.08	.48	299	1.71	1.31	3,657	20.97	.32	3,970	22.76	2.11
Automobile tires:													
1926	17,951	3	.06	.33	32	.59	.46	2,913	54.07	.72	2,948	54.72	1.51
1927	30,696	7	.08	.46	61	.66	.51	3,771	40.95	.73	3,839	41.69	1.70
1928	36,377	9	.08	.49	62	.57	.51	3,877	35.53	.62	3,948	36.18	1.62
1929	35,967	12	.11	.67	64	.59	.40	2,642	24.49	.43	2,718	25.19	1.50
Boots and shoes:													
1926	14,779	1	.02	.14	5	.11	.05	316	7.13	.09	322	7.26	.28
1927	39,763	1	.01	.05	69	.58	.47	892	7.48	.14	962	8.07	.66
1928	35,396	2	.02	.11	79	.74	.75	904	8.52	.17	985	9.28	1.03
1929	48,258	1	.01	.04	87	.60	.49	1,228	8.48	.14	1,316	9.09	.67
Brick:													
1926	4,703	3	.21	1.28	11	.78	1.67	809	57.34	.92	823	58.33	3.87
1927 [1]	13,497	9	.22	1.33	31	.77	.75	1,436	35.46	.55	1,476	36.45	2.63
1928 [2]	9,685	8	.28	1.65	16	.55	.59	1,237	42.56	.73	1,261	43.39	2.97
1929 [1]	11,629	15	.43	2.58	31	.89	1.04	1,578	45.29	.65	1,624	46.61	4.27
Carpets:													
1926	1,482	0			0			19	4.31	.08	19	4.31	.08
1927	15,321	1	.02	.13	12	.26	.25	214	4.66	.11	227	4.94	.49
1928	14,091	4	.09	.57	25	.59	.67	231	5.47	.14	260	6.15	1.38
1929	14,286	4	.09	.56	31	.72	.89	358	8.34	.12	393	9.15	1.57
Chemicals:													
1926	3,117	0			2	.21	.06	124	13.26	.25	126	13.47	.31
1927 [1]	8,540	5	.20	1.17	17	.66	.68	308	12.02	.22	330	12.88	2.07
1928	12,461	20	.53	3.21	35	.94	1.33	735	19.66	.45	790	21.13	4.99
1929	15,506	7	.15	.90	57	1.23	1.00	836	17.97	.27	900	19.35	2.17
Cotton goods:													
1926	44,194	0			23	.17	.14	1,171	8.83	.18	1,194	9.00	.32
1927	56,903	6	.04	.21	57	.33	.33	2,258	13.23	.27	2,321	13.60	.81
1928	63,952	5	.03	.16	82	.43	.35	2,332	12.15	.23	2,419	12.61	.74
1929 [1]	69,694	10	.05	.29	125	.60	.53	3,002	14.36	.28	3,137	15.01	1.10
Electrical machinery:													
1926	18,137	2	.04	.22	56	1.03	.64	1,095	21.13	.37	1,153	22.20	1.23
1927	60,927	11	.06	.36	210	1.15	1.02	2,611	14.28	.36	2,832	15.49	1.74
1928	61,634	10	.05	.32	183	.99	.80	2,181	11.80	.32	2,374	12.84	1.44
1929	85,201	12	.05	.28	388	1.52	.12	3,502	13.70	.27	3,902	15.27	.67
Fertilizers:													
1926	1,309	1	.26	1.54	2	.51	.28	174	44.54	.88	177	45.31	2.70
1927	2,498	3	.40	2.40	7	.93	1.79	261	34.83	.66	271	36.16	4.85
1928	4,341	10	.77	4.60	13	1.00	.91	476	36.54	.77	499	38.31	6.28
1929 [1]	5,167	9	.58	3.48	13	.84	1.14	567	36.57	.69	589	37.99	5.31
Flour:													
1926	3,889	4	.34	2.06	15	1.29	1.94	310	26.57	.50	329	28.20	4.50
1927 [1]	7,107	5	.23	1.41	25	1.17	.90	477	22.37	.41	507	23.77	2.72
1928 [2]	9,355	5	.18	1.07	24	.86	.94	845	30.10	.54	874	31.14	2.55
1929	10,863	7	.21	1.29	31	.95	1.00	1,202	36.89	.62	1,240	38.05	2.91
Foundry and machine-shop products:													
1926	27,069	17	.21	1.26	85	1.05	1.05	3,193	39.32	.58	3,295	40.58	2.89
1927 [1]	72,963	38	.17	1.04	338	1.54	1.33	6,356	29.05	.51	6,732	30.76	2.88
1928 [2]	66,276	29	.15	.93	301	1.51	.82	5,763	28.98	.21	6,093	30.64	1.18
1929	70,850	23	.11	.65	339	1.59	1.39	6,799	31.99	.48	7,161	33.69	2.52

[1] The record for Kansas for 1927 and for North Carolina for 1929, included in this table, covers 6 months only (July to December).

[2] The record for Oklahoma, included here, omits fatal cases.

NUMBER OF ACCIDENTS AND ACCIDENT FREQUENCY AND SEVERITY RATES FOR SPECIFIED INDUSTRIES, 1926 TO 1929—Continued

Industry and year	Number of full-year workers reported	Death			Permanent disability			Temporary disability			Total		
		Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate
Furniture:													
1926	11,726	0	------	------	60	1.71	1.44	795	22.60	0.53	855	24.31	1.97
1927 [1]	21,918	5	0.08	0.46	124	1.88	1.43	1,296	19.70	.30	1,425	21.66	2.19
1928 [2]	22,020	7	.11	.63	90	1.36	.98	1,192	18.04	.31	1,289	19.51	1.92
1929 [1]	24,345	8	.11	.66	160	2.19	1.54	1,704	23.34	.31	1,872	25.64	2.51
Glass:													
1926	6,717	1	.05	.30	17	.84	1.04	797	39.55	.49	815	40.44	1.83
1927	19,267	14	.24	1.45	24	.42	.35	2,233	38.63	.51	2,271	39.29	2.31
1928 [2]	21,107	7	.11	.66	28	.44	.32	2,620	41.38	.55	2,655	41.93	1.53
1929	27,242	14	.17	1.02	43	.52	.36	2,456	29.96	.37	2,513	30.65	1.75
Hardware:													
1926	886	0	------	------	5	1.88	.73	75	28.22	.58	80	30.10	1.31
1927	3,764	1	.09	.53	15	1.33	1.02	330	29.22	.44	346	30.64	1.99
1928	4,040	3	.25	1.49	14	1.16	1.00	400	33.01	.55	417	34.42	3.04
1929	4,467	2	.15	.89	28	2.09	1.42	460	34.32	.40	490	36.56	2.71
Iron and steel:													
1926	436,692	322	.25	1.47	1,202	.92	.80	31,667	24.17	.40	33,191	25.34	2.67
1927	395,707	245	.21	1.24	1,033	.87	.80	22,060	18.58	.30	23,338	19.66	2.34
1928	418,163	229	.18	1.10	993	.79	.80	23,434	18.68	.40	24,656	19.65	2.20
1929	509,700	304	.20	1.19	1,781	1.16	.96	35,836	23.44	.47	37,921	24.80	2.62
Leather:													
1926	5,530	2	.12	.72	7	.42	.62	187	11.27	.26	196	11.81	1.60
1927	11,521	3	.09	.52	19	.55	.41	948	27.43	.43	970	28.07	1.36
1928	13,066	2	.05	.31	28	.71	.92	789	20.12	.27	819	20.88	1.50
1929 [1]	13,586	3	.07	.44	23	.56	.45	970	23.76	.36	996	24.39	1.25
Logging: 1929	16,600	33	.66	3.98	106	2.13	1.77	2,050	41.20	1.06	2,189	43.99	6.81
Lumber—planing mills:													
1926	5,242	3	.19	1.14	47	2.99	2.15	467	29.70	.65	517	32.88	3.94
1927	9,416	9	.32	1.91	72	2.55	2.64	634	22.44	.57	715	25.31	5.12
1928 [2]	12,112	6	.17	.99	118	3.25	2.17	1,162	31.97	.60	1,286	35.39	3.76
1929 [1]	14,021	7	.17	1.00	169	4.02	2.85	1,233	29.34	.49	1,409	33.53	4.34
Lumber—sawmills:													
1926	5,302	15	.94	5.66	33	2.07	3.28	1,012	63.62	1.57	1,060	66.63	10.51
1927	13,631	22	.54	3.23	130	3.19	3.74	2,386	58.46	1.25	2,538	62.19	8.22
1928	36,724	72	.65	3.92	374	3.39	3.29	5,467	49.63	1.08	5,913	53.67	8.29
1929 [1]	20,481	19	.31	1.86	157	2.56	1.78	2,840	46.29	.88	3,016	49.16	4.52
Machine tools:													
1926	9,303	3	.11	.64	15	.54	.32	623	22.32	.25	641	22.97	1.21
1927	12,207	3	.08	.49	28	.76	.70	780	21.30	.34	811	22.14	1.53
1928	13,074	7	.18	1.07	44	1.12	.90	875	22.31	.40	926	23.61	2.37
1929	16,509	7	.14	.85	49	.99	.74	1,253	25.31	.36	1,309	26.44	1.95
Paper and pulp:													
1926	16,770	7	.14	.83	36	.72	.83	1,562	31.05	.51	1,605	31.91	2.17
1927 [1]	26,074	18	.23	1.38	126	1.61	1.62	2,224	28.43	.60	2,368	30.27	3.60
1928	27,158	14	.18	1.03	154	1.89	2.04	2,284	28.03	.56	2,452	30.10	3.63
1929 [1]	34,632	14	.13	.81	193	1.86	1.71	2,900	27.91	.48	3,107	29.90	3.00
Petroleum refining:													
1926	3,783	0	------	------	6	.53	.32	99	8.72	.20	105	9.25	.52
1927 [1]	19,951	25	.42	2.51	67	1.12	1.12	1,979	33.04	.52	2,071	34.58	4.15
1928 [2]	22,401	25	.37	2.23	46	.69	.42	1,310	19.49	.37	1,381	20.55	3.02
1929	25,849	28	.36	2.17	69	.89	.72	1,609	20.76	.34	1,706	22.01	3.23
Pottery:													
1926	3,946	1	.08	.51	2	.17	.36	142	12.00	.25	145	12.25	1.12
1927	6,053	2	.11	.66	6	.33	.18	229	12.61	.17	237	13.05	1.01
1928	7,449	3	.13	.80	7	.32	.46	299	13.38	.26	309	13.83	1.52
1929	9,275	1	.03	.21	9	.32	.21	445	15.97	.27	455	16.32	.69
Shipbuilding:													
1926	745	0	------	------	2	.89	1.92	123	55.03	.96	125	55.92	2.88
1927	6,011	5	.28	1.66	36	2.00	2.58	798	44.25	.76	839	46.53	5.00
1928	9,133	3	.11	.66	43	1.57	1.26	448	16.35	.48	494	18.03	2.40
1929	13,642	10	.24	1.46	47	1.15	.80	910	22.20	.34	967	23.59	2.60

[1] The record for Kansas for 1927 and for North Carolina for 1929, included in this table, covers 6 months only (July to December).

[2] The record for Oklahoma, included here, omits fatal cases.

NUMBER OF ACCIDENTS AND ACCIDENT FREQUENCY AND SEVERITY RATES FOR SPECIFIED INDUSTRIES, 1926 TO 1929—Continued

Industry and year	Number of full-year workers reported	Death			Permanent disability			Temporary disability			Total		
		Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate
Slaughtering and meat packing:													
1926	19,809	8	9.13	0.81	93	1.56	1.50	2,935	49.39	0.66	3,036	51.08	2.97
1927 [1]	36,222	15	.14	.83	136	1.25	1.00	3,810	35.05	.54	3,961	36.44	2.37
1928 [2]	38,674	15	.13	.78	127	1.09	.71	5,080	43.78	.63	5,222	45.00	2.12
1929	48,116	23	.16	.96	187	1.29	.81	6,449	44.67	.57	6,659	46.12	2.34
Stamped and enameled ware:													
1926	6,105	0			28	1.52	1.15	893	48.76	.48	921	50.28	1.63
1927	10,004	2	.07	.40	36	1.20	.70	807	26.89	.35	845	28.16	1.45
1928	8,068	2	.08	.50	50	2.07	1.20	688	28.42	.44	740	30.57	2.14
1929	8,537	3	.12	.70	77	3.00	2.07	703	27.42	.42	783	30.54	3.19
Steam fittings, apparatusand supplies:													
1926	2,640	0			4	.50	1.32	248	31.31	.39	252	31.81	1.71
1927	15,652	2	.04	.25	25	.53	.32	1,057	22.51	.33	1,084	23.08	.90
1928	8,935	4	.15	.90	42	1.57	1.25	858	32.00	.55	904	33.72	2.70
1929	9,538	2	.07	.42	30	1.05	.85	863	30.12	.43	895	31.24	1.70
Stoves:													
1926	4,379	0			21	1.60	1.93	532	40.50	.62	553	42.10	2.55
1927	7,515	1	.04	.27	25	1.11	1.04	1,002	44.44	.62	1,028	45.59	1.93
1928	7,880	3	.13	.76	28	1.18	.70	934	39.51	.55	965	40.82	2.01
1929	9,645	3	.10	.62	46	1.59	1.39	1,196	41.38	.53	1,245	43.07	2.54
Structural-iron work:													
1926	1,737	12	2.30	13.82	12	2.30	3.78	358	68.70	1.32	382	73.30	18.92
1927 [1]	8,862	23	.87	5.20	20	.75	.51	1,046	39.34	.61	1,089	40.96	6.32
1928 [2]	10,105	15	.49	2.96	52	1.72	1.24	1,566	51.65	.92	1,633	53.86	5.12
1929	13,553	15	.37	2.21	69	1.70	.87	1,661	40.86	.64	1,745	42.93	3.72
Woolen goods:													
1926	7,757	1	.04	.26	3	.13	.06	252	10.84	.30	256	11.01	.62
1927	15,796	1	.02	.13	10	.21	.17	444	9.37	.15	455	9.60	.45
1928	22,607	0			23	.34	.29	762	11.23	.18	785	11.57	.47
1929	23,189	2	.03	.17	25	.36	.33	1,024	14.74	.25	1,051	15.13	.75
All groups:													
1926	719,185	416			2,043			55,590			58,049		
1927	1,003,953	495			2,929			65,097			68,521		
1928	1,075,687	531			3,331			72,678			76,540		
1929	1,276,103	616			4,801			92,733			98,150		
Weighted average, all groups:													
1926			.22	1.30		1.10	1.47		29.85	.54		31.17	3.31
1927			.18	1.06		1.20	1.20		24.54	.45		25.92	2.71
1928			.18	1.11		1.28	1.08		24.66	.43		26.13	2.52
1929			.16	.94		1.42	1.05		25.36	.43		26.94	2.42

[1] The record for Kansas for 1927 and for North Carolina for 1929, included in this table, covers 6 months only (July to December).

[2] The record for Oklahoma, included here, omits fatal cases.

Workingmen's Housing in Vienna

By Ernest L. Harris, American Consul General, Vienna, Austria

AVAILABLE information indicates that before the inauguration of Vienna's building program serious difficulties, unpleasantness, and even misery resulted from the prevalent deficiency in adequate residential space in Vienna. The workingmen's homes were in general small, insanitary, and uncomfortable. In fact, out of a total of 554,545 dwellings recorded in Vienna on April 12, 1917, 405,990, or 73.2 per cent, came under the category of small dwellings, consisting at the most of two rooms of limited size. Rents were high. Workmen and clerks often had to spend about one-fifth of their incomes for dwellings inadequate even for the most elementary needs of health. High rents forced many tenants with small dwellings to take in subtenants and lodgers.

In November, 1918, in consequence of the war and the dismemberment of the Austro-Hungarian monarchy, the Social Democrats (the Austrian labor party) became predominant in the Federal as well as in the Vienna municipal government, and ever since that time have held the reins in the city council, with a significant majority. One of their principal goals was the alleviation of the shortage in dwellings.

The main reasons for the aggravated shortage of homes during and after the war were: (1) The almost complete cessation of building activities from 1914 to 1921, (2) the increased demand for flats because of increased marriages after the war, (3) the wish of working classes for better living quarters—workers were not only able to take more commodious tenements because of low rents (the latter being restricted by the tenants' protection law) but they also ceased taking roomers for the same reasons, (4) immigration to Vienna from other parts of the former monarchy, (5) commandeering of private buildings for military use during the war.

The increase of marriages and various other developments resulting from the war brought about an increase of household establishments in Vienna to the extent of 40,000 from 1910 to 1923. This development was to a great extent responsible for the augmented shortage of living quarters, despite the fact that the population of Vienna decreased 167,759 persons from 1910 to 1923. The downward trend has continued in recent years. At the end of 1929 the population was estimated at 1,847,488 persons.

In consequence of the low rents, the number of subtenants has enormously decreased since the war and the density in the living quarters has been reduced.

Immediate Postwar Housing Measures

The measures which the city took to offset the deficiency in dwellings in the first three years following the war had a very limited effect, because of the lack of available means. Among the results should be mentioned the issuance of a decree in 1921 as a consequence of which newly constructed residences were exempt from all municipal taxes for a period of 30 years. The purpose of the decree was to stimulate private building activities. The results, however, were very unsatisfactory, and there was no private residential construction of consequence.

With housing conditions steadily growing worse, and with unemployment constantly growing, the municipal administration was forced to seek every possible means to alleviate the situation. First of all, there were attempts to establish emergency homes for those without dwellings. The most favorable opportunity for the immediate provision of such emergency dwellings was found in the remodeling of the barracks which were unoccupied after the war. Hence, there were 86 dwellings established in barracks in 1919, 160 in 1921, 251 in 1922, and 288 in 1923, making a total of 785 such residences.

While the dwellings in the barracks bore the indisputable character of emergency residences, the municipality in the autumn of 1919 advanced a definite program for a more extensive residential campaign. This eventuated in the construction of a settlement on the Schmelz, Vienna's largest drill ground, in the fifteenth district, of 150 houses. Thus the comprehensive movement to meet the residential demand was begun.

At that time four building blocks were put under construction, which contained 42 one-story houses, comprising 308 dwellings and 14 business locations. All of these were completed by 1922.

Until February 1, 1923, building activity in Vienna was financed by the returns from the general rent tax (*Mietzinsabgabe*) established in 1922. The returns from this tax served also to pay the interest and amortization on loans amounting to several billion Austrian crowns which were borrowed for building purposes. In addition, there were temporary sums deducted from the Federal residence and settlement fund, maintained by the employers, so that a carefully planned residence policy and building program could be carried out in 1922. Partly on account of the depreciation of the Austrian crown, however, available funds were inadequate. Another obstacle was found in the lack of building materials.

For these reasons only four new large buildings were constructed during 1922 and several municipal structures were enlarged, containing altogether 658 dwellings, 7 workshops, and 3 business locations.

Dissatisfied with the result, which seemed to be rather insignificant in view of the pressing need for residences, the municipality of Vienna, on February 1, 1923, undertook to introduce the more productive residential construction tax (*Wohnbausteuer*) in the place of the rent tax (*Mietzinsabgabe*). The new residential tax was intended only for the construction of residences within the territory of the city of Vienna, but the collections from this tax can also be used for paying interest and amortization of loans contracted for the same purpose.

The scope of the residential construction program planned in 1923 on the basis of this tax was considerably enlarged by merging it with the three emergency programs of the city of Vienna for the restriction of unemployment, making it possible to construct 4,258 residences before the end of 1923.

Housing Since 1923

ALTHOUGH such building activity could be called extensive, as compared with that of other years after the opening of the war, it was considered insufficient in view of the scarcity of housing accommodations. For this reason, in its meeting held on September 21,

1923, the Vienna City Council resolved to construct 25,000 dwellings within five years' time.

It should be stated here that these 25,000 residences were finished one year ahead of the appointed time; therefore the city council resolved to construct 5,000 more in the spring of 1927, and in the same year designed another comprehensive program for the construction of 30,000 additional dwellings to be completed by the end of 1932—in other words, 6,000 dwelling units to be built during each year from 1928 to 1932. Should this program be accomplished, these dwellings, together with those already recently built, will bring the total constructed by the city to 64,258.

In addition to the measures mentioned above, the Vienna City Council, on September 20, 1929, resolved to construct an additional 10,000 residences by means of the subsidy provided by the Federal law for the promotion of residential construction.

Until December 31, 1930, such subsidies were granted for only 572 dwellings, all of which are under construction. It is doubtful whether subsidies for 10,000 residences will be obtainable.

The accurate total of residences created by the community of Vienna after the war, both by the adaptation of barracks and the like and by the construction of large tenement houses, as well as houses for one or more families, could not be ascertained. From available information it appears, however, that in setting this figure at 45,000, one would not be far from right.

The American Consulate General was supplied, however, with detailed statistics concerning the creation of residences from 1923 to 1930. They show that during that period 38,330 residences in chain apartment houses were constructed. From 1921 to 1930, 4,899 apartments were established in houses for one or more families, arranged in garden settlements.

The total number of residences constructed in each year is shown in the following table:

NUMBER OF DWELLINGS CONSTRUCTED BY CITY OF VIENNA, IN APARTMENT BUILDINGS AND IN HOUSES, 1923 TO 1930

Year	Number of dwellings provided in—	
	Apartment buildings	Houses (1-family or larger)
1923	1,509	[1] 1,755
1924	642	
1925	6,917	588
1926	8,492	639
1927	6,445	712
1928	4,276	146
1929	4,205	244
1930	5,844	815
Total	38,330	4,899

[1] Number constructed from 1921 to 1924.

FIGURE 1.—FRONT VIEW OF THE LARGEST APARTMENT BUILDING ERECTED BY CITY OF VIENNA

FIGURE 2.—VIEW OF COURTYARD OF APARTMENT BUILDING IN VIENNA

At the end of 1930, a total of 7,699 municipal dwellings were under construction in Vienna. Plans are completed for another 6,841 apartments, the construction of which will be started in 1931.

The largest chain apartment house is the "Karl Marx Hof." It comprises altogether 1,200 apartments, consisting of 100 adjoining houses, each with a separate staircase; each apartment has a little balcony and at least one room facing the sunny side. Most of the dwellings in this building have from 216 to 517 square feet of floor space. The average cost of the construction of one dwelling amounted to 15,000 schillings ($2,111). The large courtyards are planted with trees and lawns, and the pathways are lined with benches. In the courtyards are to be found separate buildings for the kindergarten and for the washing, drying, and pressing of laundry. The bath-house is open three days a week.

Among the Vienna municipal apartment buildings under construction, one of the largest is that located in the so-called "Brigittenau," that is, the twentieth Vienna district.

It will comprise 2,000 apartments, large courtyards, parks, and kindergartens. It will be finished during the current year.

According to the various building programs, 52,258 dwellings were to be completed by the end of 1930. Construction activity, however, has been retarded so that the community is 7,258 dwelling units behind schedule. This means that the program will be completed one year later than intended, or in 1933, unless activities are carried on at greater speed than heretofore.

Financing, and Expenditures for Housing

THE residential building activity of the city of Vienna has been financed from current taxes, 40 per cent in recent years coming from the residential tax for tenement construction purposes.

From 1923 to 1930, the city of Vienna spent $93,432,099 for the construction of dwellings. The amounts invested in each year are shown in the statement below. During the last three years expenditures for the purposes in question were stable, almost $13,000,000 being spent per annum. The importance of this line of the city's investment activity is indicated by the fact that during 1930 the total expenditure for the construction of living quarters amounted to almost 20 per cent of the city's total expenditure.

The statement below shows the total expenditure of the city of Vienna for the construction of residences, each year since 1923:

1923	$2, 538, 000
1924	9, 071, 940
1925	13, 510, 620
1926	16, 464, 570
1927	13, 214, 520
1928	12, 912, 780
1929	12, 860, 469
1930	12, 859, 200
Total	93, 432, 099

FIGURE 2.—VIEW OF COURTYARD OF APARTMENT BUILDING IN VIENNA

Private Building Activity in Vienna

PRIVATE building activity has not been considerable during recent years. The latest statistics available are those of 1929. The total number of apartments newly constructed in Vienna during that year amounted to 573. These apartments contained altogether 1,096 rooms, 797 so-called "Kabinette" (small rooms with one window), 554 kitchens, and 213 bathrooms.

On the other hand, 188 apartments were demolished. Thereby, the total Vienna living space was diminished by 245 rooms, 115 small rooms, 176 kitchens, and 7 bathrooms.

During 1930, increased activity was developed as a result of the extension of financial support by the Federal Government.

Most of the buildings constructed were one and two family houses. Practically no apartment houses were built.

On the one hand, the present costs of construction, as compared with pre-war conditions, are considerably higher; on the other hand, interest on invested capital is also much more than before the war. It is, therefore, no exaggeration to say that a workingman would have to give 50 per cent of his wages to pay the rent on a small dwelling built by private capital. This is undoubtedly the reason why private capital has not entered the field.

A construction policy was not adopted by the private interests, although the new houses would have been exempt from taxes for 30 years, and there would have been no restriction either as to giving notice or as to rent fixing.

The municipal authorities point out that the extraordinary advantage of the Vienna municipal rent policy lies in the fact that the new community houses are available for the poorer classes of the population.

Conditions Determining Selection of Housing Types

THE leading officials, architects, and engineers of the city of Vienna, engaged in the construction of residential buildings, had to decide whether larger apartment houses, small family cottages, or settlements would best fulfill the need. On the whole, they decided in favor of the large apartment buildings.

In support of this decision, the following reasons were given:

The outstanding advantage of garden settlements can not be gainsaid, and there is no denying that the 1-family cottage form of lodging would also be a good thing for Vienna.

In the large cities of the European Continent, however, where there is concentrated industrial development, this idea could not be widely carried out. Paris, Berlin, Vienna, and Budapest, prior to the war, had adopted the type of large tenement houses for the working classes. To become the owner of a cottage with a small garden was quite beyond the means of the average clerk or workman in these countries.

A garden city for 25,000 families, if one reckons 2,153 square feet to one cottage with garden, and 3,229 square feet including street section and other free space pertaining to the house, would require a territory of 2.9 square miles. Such a territory was never owned by the city nor could it be acquired, owing to the lack of an efficient

expropriation bill. Even smaller territories, lots, or building spaces, which, taken together, constituted the area required, were not available.

In view of the pressing need and scarcity of residences, the city council was constrained to use those small sites which were offered for sale and which permitted immediate construction without prohibitive expense, since gas and water supply, electric connections, sewerage, and roads already existed.

Special care was taken that all apartment houses were surrounded by parks and that they should contain large courtyards with ample lawns, playgrounds with sand piles and wading pools for the children.

On the other hand, the city council of Vienna is doing everything in its power to further the project of a garden city movement. In 1921, it established settlements in the thirteenth district (Hermesgasse), in the eleventh district (Weissenboeckstrasse), and in the twenty-first district (Kagran), where 265 one-family cottages in rows and groups were erected by the municipality.

This action was immediately followed by increased activity on the part of various settlement organizations enjoying noteworthy assistance from the city of Vienna. The latter not only provided land to the extent of over 0.4 square mile, but it also contributed 85 per cent of the cost of construction. At the end of 1926, $3,948,000 had been expended for this purpose and 3,400 settlers' houses were erected.

Since 1927, this method of financial aid has been abandoned. The city then resolved to bear all building expenses itself. Construction is carried out by the "Gesiba," a contracting firm controlled by the city council. The large-scale activity permits economy.

About 520 single-family houses are erected per year. The site area measures about 2,152 square feet, the area built upon about 441 square feet, and in the case of the small type, 323 square feet. The dwellings are of two stories, and the actual habitable space consists of from 484 to 667 square feet. All houses are furnished with cellar space, water from the main supply, and gas and electric current. The rent amounts to $3.70 per month.

Home building and loan association plan.—A number of 1-family cottages are built every year under the community home building and loan association plan (*Heimbauhilfe*).

For this plan, the municipality of Vienna has accorded a credit of $423,000 to the "Gesiba," which is erecting a colony of about 200 one-family cottages in rows and groups near the "Wasserturm," a territory in the tenth district of Vienna. These cottages, fitted with bathrooms, kitchens and the like, and erected on sites belonging to the city, are constructed by the municipality for persons who must pay a first installment of 25 per cent of the total cost of construction. The rest is covered by a 4 per cent long-term loan which they obtain from the municipality, up to a maximum of $1,823.

Principles Observed in Community Housing

MANY leading Vienna architects, as well as the architects of the Municipal Building Department, have been intrusted with the drawing up of the plans. The foremost sculptors are commissioned for the adornment of the new buildings.

The ideal of erecting only healthful living quarters providing sufficient space and light has always been borne in mind. Even the emergency quarters in wooden barracks, resorted to as a temporary measure, were built in such a manner that each construction could be called a success from this point of view.

In the municipal buildings at least 50 per cent of the site is left free, for use as a garden or yard provided with a playground for children. What this means to the health of the tenants may be realized by comparing the new garden yards with the extremely small courts and light shafts of buildings erected by private enterprise.

Many of the city's residential building plans include also stone swimming pools, which serve as skating rinks in winter.

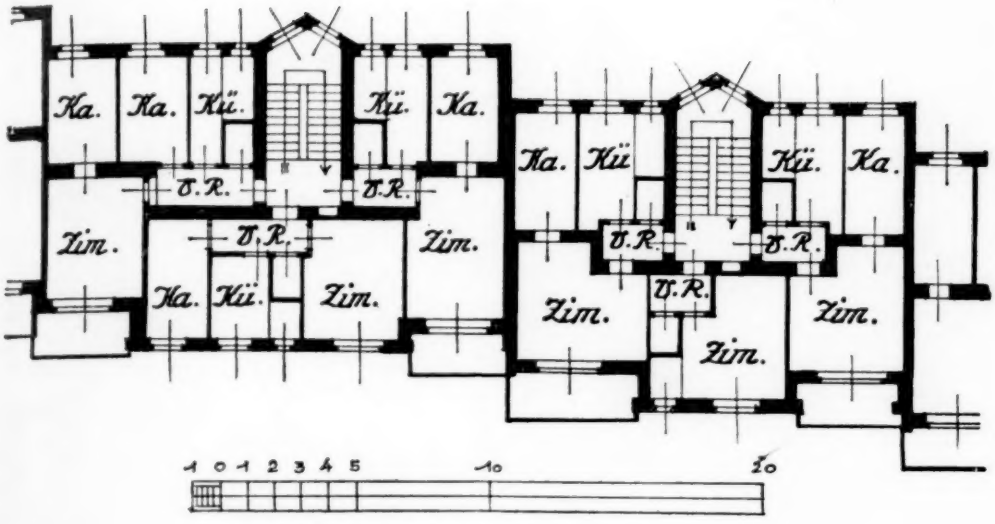
All rooms have direct lighting. There is at least one staircase to every four residences. It is noteworthy, however, that there are no elevators in the new municipal tenement houses.

The unprecedented activity of the community of Vienna in the field of municipal housing may best be illustrated by comparing the small dwellings built before the war with those erected by the community in the new municipal houses. Before 1919, of 1,000 small residences constructed, only 847 were supplied with kitchen, only 62 with entrance hall, 607 with loft, and 700 with cellars. Furthermore, only 232 small residences out of the 1,000 were then fitted with gas or electric light, 953 had a water tap and 921 had the toilet located somewhere without the premises. In many cases, one water tap and closet had to be used by two or more families. On the other hand, in the new community buildings, erected since the close of the war, each dwelling has a hall, attic, and cellar, as well as a gas stove, gas and electric light, water tap and toilet, the last-named being located within the premises. The kitchens are often planned as kitchen-living rooms, but they are invariably provided with a gas cooker and water supply. The cooking recesses, sinks, and lavatories are tiled and fitted with waterproof plaster. The living-room floors are of oak.

Auxiliary Buildings

MUNICIPAL block apartment houses containing more than 300 dwellings, are equipped with a steam laundry having the best modern fixtures. The housewife is thus enabled to wash, as well as dry and iron, the whole family washing within three or four hours. In the case of smaller buildings several laundries of smaller size are built, and the tenants have the use of drying lofts. Each comparatively large block of dwellings is provided with cell shower baths and tub baths.

Very frequently, kindergartens and day-nurseries have been provided, as well as public libraries, centers for maternity advice and welfare quarters for tubercular persons, halls for social gatherings, and shops. A large number of dwellings of the type having a central kitchen building have also been erected.



V. R. = Entrance hall.
Ka. = "Kabinette" (small room with one window.)
Kü. = Kitchen.
Zim. = Living room.

FIGURE 3.—FLOOR PLAN OF APARTMENT ERECTED UNDER VIENNA HOUSING PLAN

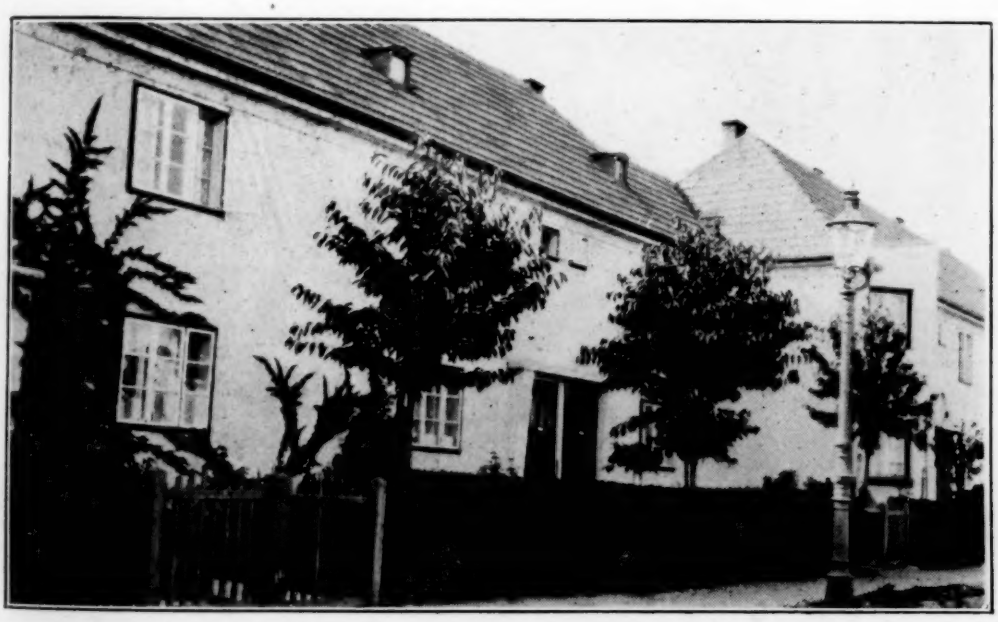


FIGURE 4.—WORKMEN'S HOUSES ERECTED BY CITY OF VIENNA

FIGURE 5.—FRONT VIEW OF ONE OF THE APARTMENT BUILDINGS ERECTED BY CITY OF VIENNA

Type and Size of Apartments Provided

DURING the first postwar years two types of tenements were constructed chiefly. The first type consisted of a small entrance hall, toilet, a large kitchen for cooking and living purposes (*Wohnkueche*), and one other room, comprising altogether at least 409 square feet of useful floor space. Almost 75 per cent of all tenements constructed from 1920 to 1927 were of that type. The second type was larger, measuring 517 square feet of floor space, and having a small sleeping room in addition to the rooms of the former type. In single cases somewhat larger flats have also been constructed. In cases where there was not enough room for one of the types above described, tenements for one person have been substituted. These types are very much in demand. They consist of an entrance hall, one room, and toilet. There is a water tap and a gas plate in every flat.

At the beginning of 1927, however, four new types were introduced to take the place of the old ones. They are as follows:

(*a*) Apartments with 432 square feet of useful floor space, divided as follows: Entrance hall, 22 square feet; toilet, 11 square feet; kitchen, 97 square feet; living room, 194 square feet; and small bedroom, 108 square feet. Fifty-five per cent of all apartments constructed since 1927 have been of this type.

(*b*) Apartments with 517 square feet: Hall, 22 square feet; toilet, 11 square feet; kitchen, 75 square feet; living room, 194 square feet; and two small bedrooms (107.5 square feet each), 215 square feet. Twenty-five per cent of all apartments constructed since 1927 have been of this type.

(*c*) Apartments with 603 square feet: Hall, 22 square feet; toilet, 11 square feet; kitchen, 75 square feet; two rooms (193.5 square feet each), 387 square feet; and small room, 108 square feet. Only 6 per cent of the apartments built since 1927 fall under this category.

(*d*) Apartments for single persons, measuring 216 square feet of useful floor space: Hall with gas plate, 22 square feet; toilet, 11 square feet; and room with running water, 183 square feet. Fourteen per cent of all apartments constructed have been of this type.

Each of the big apartment buildings has a few larger apartments than those listed above. They are let to physicians and other intellectuals.

The housing bureau of the city of Vienna states that visitors from England and various other countries have often remarked upon the relatively smaller dimensions of the dwellings built in Vienna. The bureau points out, however, that the unusually bad housing conditions of the Vienna proletariat in the pre-war period should not be forgotten. It was also mentioned that recently, opinions abroad have changed to the belief that the residential size originally desired (from 700 to 760 square feet) can no longer be maintained on account of exorbitant rent and lack of money. Thus, for example, various German experts propose the construction of small dwellings which have areas between 300 and 500 square feet. As already mentioned in this report, 75 per cent of all living quarters constructed by the city of Vienna after 1926 have a floor space of from 400 to 500 square feet.

Rents in Vienna Municipal Apartment Houses

UNDER existing legislation, there are no restrictions whatever as to rents in new buildings. Nor is the house owner limited in his rights in regard to giving notice, as is the case with old houses. Nevertheless, the Vienna municipality maintains rents at approximately the same low level as prevails in pre-war houses. In fact it would not be practicable to charge the tenants, chiefly laborers, of the new municipal houses higher rents than the workmen and other tenants residing in the old houses.

Rents in privately owned apartment houses, constructed before and during the war, are limited by the tenants' protection law. The latter provides for a gradual increase of rents, the highest limit of which will be reached on August 1, 1931. Consequently, rents are based upon the pre-war figures in crowns. In this calculation, however, 1 crown (20.2 cents) is now reckoned at 3.4 cents, in the case of small and moderate-sized residences. This means that rents amount to only one-sixth of pre-war rents. After August 1, 1931, rents will amount to only a little more than one-fifth of pre-war rents.

The director of the Vienna Housing Bureau stated that rents in municipal houses are fixed at such amounts that all running expenses such as water consumption, sewerage, chimney cleaning, lighting of staircases, and insurance, as well as the expenses for maintenance of buildings and gardens, and finally, the cost of administration, are covered. However, they do not include any return on the invested capital.

The necessity of maintaining low rents was recognized by a majority vote in the city council as the principal reason why the municipal building activity can not be financed by loans. As matters stand at the present time, it is figured that the chain apartment houses are not encumbered by interest and amortization on loans because they are constructed by means of current tax receipts. Hence, the municipality can afford to base rents on the cost of upkeep and repair only.

Since the actual cost of maintenance is comparatively small in the case of these new houses, amounts exceeding the present requirement are included in the rent. These surplus profits are put into a reserve fund for future maintenance, in order to obviate the necessity of raising rents in the future.

The present monthly rent per square foot ranges from 0.144 cent to 0.392 cent. However, the great majority of all tenants in municipal houses pay only from 0.196 cent to 0.130 cent per square foot.

In addition, the house construction tax must be paid, which amounts to 1.50 schillings (21 cents) on the average, but never exceeds 2.50 schillings (35.2 cents). The maximum rate is levied for the large apartments in municipal houses. This means that the rent, including house construction tax, for the predominating type of apartment—one consisting of a small entrance hall, one room, and a toilet—amounts to 7.20 schillings ($1.015) per month. This apartment has a useful floor space of 409 square feet.

Housing Procedure of Municipal Housing Bureau

THE city of Vienna asks for competitive bids for the construction of apartment and other houses. The Vienna Municipal Construction Bureau (*Stadtbauamt*) states that reasonable prices of construction

are guaranteed by the fact that there is a considerable number of firms in Austria competing for the business.

On the basis of total expenditure for the construction of 39,323 residences, the cost of construction per unit amounted to $2,080.

The building operations are carried out under the management of the Municipal Construction Bureau. The materials are transported largely by municipal auto trucks, street cars, and specially constructed railroads. Uniform doors and windows are ordered in advance in tens of thousands.

Securing sites has proved to be one of the most difficult problems. In 1919, the municipality had very little ground at its disposal, and that was intended to be used principally to provide building sites for schools, public offices, and the like. A carefully planned land policy was shortly afterwards inaugurated, and by the end of 1928, the municipality of Vienna had in its possession and under its direction within the boundaries of the city 15,835 acres. Purchases of ground during 1929 and 1930 were less important than in previous years.

The areas acquired by the city of Vienna in each year from 1919 to 1928 are shown below. The total acquisition amounted to 4,250 acres.

Land owned by city of Vienna at end of year—	Acres
1918	11, 584
1919	11, 994
1920	12, 001
1921	12, 006
1922	12, 448
1923	13, 314
1924	14, 155
1925	14, 391
1926	14, 624
1927	15, 642
1928	15, 835

It is noteworthy that the city's acquisitions of ground chiefly for the construction of tenement houses and the creation of garden settlements from 1918 to 1930 amounted to a little less than 10 per cent of the total area of Vienna.

All building materials, without exception, are provided for by the municipality itself. The city therefore assumes the responsibility for the quality of all materials used, the quality being in each instance tested in the municipality's testing stations. This collective system makes possible significant economies.

The administration of the city of Vienna has appointed a special department for the provision and supervision of building materials. All municipal plants producing such materials were modernized and additional important factories were acquired. In 1919, large brick works were purchased. All limestone used in municipal construction comes from the quarries at Kaltbrunn, Austria, which came into the possession of the city in 1923. In order to secure a sufficient quantity of sand of good, uniform quality, the Vienna public authorities acquired in 1918 the Wiener Baustoff A. G., one of the most important companies for the production of sand. It should be mentioned further that all construction materials are transported chiefly by municipal street cars and trucks.

Demand and Supply in the Residential Market

For years there has existed in Vienna a marked scarcity of residences. The waiting list of the city residence bureau has contained

the names of thousands who desired homes as soon as vacant ones were available. Furthermore, those who did not possess the so-called "first qualification," i. e., whoever did not come under the category including married couples with children, war invalids, and the like, were in despair of ever having a residence assigned.

Recently, however, these conditions have somewhat improved. On November 30, 1930, there were only 8,075 names left on the waiting list of the residence bureau. Most of the remaining residence seekers were not of the "first classification," but were individuals with less significant requirement qualifications, as for example newly married and childless couples, etc. In addition, 3,416 applicants had registered, who desired to exchange their dwellings for others.

The chief of the municipal housing bureau pointed out, however, that these figures do not include all of the people seeking apartments and that there continues to be excessive demand for living quarters. Small, inexpensive residences are sought in particular, while large apartments are less in demand. The continuance of the scarcity of dwellings he attributes to the fact that a considerable portion of Viennese residences are unsanitary and uncomfortable.

Nevertheless, the residential need has decreased in recent years. This is illustrated by the fact that on January 1, 1926, 16,448 names with the "first qualification" were recorded on the waiting list of the Vienna Residence Bureau, while less than half as many were listed on November 30, 1930.

This fact can be attributed to two causes: (1) The extensive residential building activity of the community of Vienna; and, (2) the almost imperceptible rescinding of the tenants' protection laws (*Mieterschutz*), and the gradual increase of the rent which reduced the residential demand and residential luxury. The last mentioned was merely the result of the fact that residences were so inexpensive.

The next increase in rent will come into effect for the majority of dwellings in Vienna on August 1, 1931. For the time being this will be the last increase. It will probably result in the placing on the market of additional residential quarters. The city of Vienna, with definite plans and an assured budget, is constructing houses with undiminished activity. At present, 7,699 residences are being constructed, or 76 less than the most urgent residence demand. Hence, the time is in sight when there will be too many, rather than too few, workmen's homes in Vienna.

This will be even more the case if one considers the fact that the population of Vienna is declining. There are about 20,000 births each year and 26,000 deaths. On this account, the demand for residences will also be reduced.

In this connection, an unusually important problem will confront the people of Vienna. This is: Will the residential building activity of Vienna, or the annual tax burden of $13,000,000, be reduced in proportion to these changes? The municipal authorities pointed out that the community of Vienna will not build residences to exceed the current need to such an extent that they will stand empty. However, they do not believe that this will soon be the case.

EMPLOYMENT CONDITIONS AND RELIEF

Study of Unemployed Registered in Bridgeport, Conn.

ON THE basis of the records of the registered unemployed in Bridgeport, Conn., it has been possible for the citizens' committee on unemployment and relief of that city to ascertain the occupations of the unemployed, the length of time various persons had been unemployed and in the community at the time of the study, age distribution, nationality, and number of dependents of the persons so affected.[1] Information is made available for a total of 3,463 persons registered on January 15, 1931, of whom 2,906 were men and 557 women. Although registration on that date was incomplete, the sample was regarded as sufficiently complete to be used by the committee as a guide in planning for the employment and relief of the unemployed in the city. The results obtained, showing as they do the make-up of an unemployed group in one community on a given date, are shown briefly.

General Findings

IT WAS found that of the 3,463 persons whose records were analyzed, a total of 1,163, or 37.8 per cent, were American born. In all, 27 other countries of origin were represented, the largest foreign-born group being Italians, who comprised 540, or 17.6 per cent of the total, and are said to have been largely general and factory laborers. The distribution by sex shows that 37 per cent of the men and 42.2 per cent of the women were American born, and that 18.6 per cent of the men and 11.7 per cent of the women were Italians.

With regard to citizenship it is stated that among the 2,626 men and women who reported on their citizenship status, 1,627, or 62 per cent, were citizens and 400, or 15.2 per cent, had taken steps toward becoming naturalized. While 60.4 per cent of the men as compared with 70.2 per cent of the women were citizens at the time of the survey, the percentage of men who had taken steps to become naturalized was greater than that of women—16.8 per cent as compared with 6.9 per cent.

That the registered unemployed were not largely floaters is indicated by the fact that one in every three of the unemployed had been in Bridgeport for 20 years or more and 79.7 per cent of the total had been there for five years or more. Persons who had been in the city for less than one year formed only 4.2 per cent of the total.

Occupations

TABLE 1 shows that among the men 1,924, or 66.3 per cent, were usually employed in the manufacturing and mechanical industries. Machinists, molders, polishers or buffers, press operators, tool or die makers, and weavers were the chief occupations in the manufacturing

[1] The source of this information is an article submitted to the Bureau of Labor Statistics entitled, "A Study of the Unemployed Registered with the Citizens Emergency Committee on Unemployment and Relief, January 15, 1931," by Thelma F. Skiff.

trades, which were represented. Next in importance numerically were the men who normally were employed in transportation and communication (268) and a group of men who called themselves laborers and gave no further information (234).

The importance of domestic and personal service in furnishing employment to these women is shown in Table 1. Almost one in every two women (47.9 per cent) sought work in domestic service and 190 of a total of 267 in this class registered as houseworkers.

TABLE 1.—OCCUPATIONAL DISTRIBUTION OF THE UNEMPLOYED REGISTERED, BY MAJOR GROUPS

Usual occupation	Men		Women	
	Number	Per cent of total	Number	Per cent of total
Agriculture, fishing, and forestry	45	1.5		
Manufacturing and mechanical industries	1,924	66.3	153	27.5
Transportation and communication	268	9.2		
Trade	67	2.3	27	4.8
Public service	10	.3		
Professional service	35	1.2		
Domestic and personal service	133	4.6	267	47.9
Clerical occupations	86	2.9	47	8.4
Laborers, not otherwise specified	234	8.0		
Not stated	104	3.6	63	11.3
Total	2,906	100.0	557	100.0

Age of Registrants

THE average age of men registrants was 36.5 years and that of women, 32.1 years. The modal age for the men was between 35 and 39 years, and for women it was under 20 years. Table 2 shows the distribution of registrants by sex and by age intervals of five years.

TABLE 2.—AGE DISTRIBUTION OF THE UNEMPLOYED REGISTERED

Age group	Men		Women		Both sexes	
	Number	Per cent of total	Number	Per cent of total	Number	Per cent of total
Under 20 years	230	8.4	119	23.3	349	10.7
20 to 24 years	314	11.4	58	11.4	372	11.4
25 to 29 years	254	9.3	60	11.8	314	9.6
30 to 34 years	307	11.2	60	11.8	367	11.3
35 to 39 years	468	16.9	72	14.1	540	16.6
40 to 44 years	403	14.7	67	13.1	470	14.4
45 to 49 years	335	12.2	32	6.3	367	11.3
50 to 54 years	212	7.7	26	5.1	238	7.3
55 to 59 years	100	3.6	8	1.6	108	3.3
60 to 64 years	75	2.7	5	.9	80	2.5
65 to 69 years	35	1.3			35	1.1
70 and over	13	.5	3	.6	16	.5
Total [1]	2,746	100.0	510	100.0	3,256	100.0

[1] A total of 207, of whom 160 were men and 47 women, did not state their ages.

Taking men and women together, Table 2 shows that 74 per cent of the 3,256 persons who gave their ages were under 45 years old. The percentage of men under 45 was 72 and of women 85.5. Although few men were under 20, 64.3 per cent were between 25 and 50, ages which the report states are those at which men should be doing their best work and should have the best chances for employment. In the upper age intervals, 60 years old and over, 4.5 per cent of the men are found and only 1.5 per cent of the women.

Marital Status and Dependents

It is further shown that 63.4 per cent of the men and 40.5 of the women registered were married. An additional 21 per cent of the women and 2.7 per cent of the men are reported either separated or widowed, information which, it is said, indicates that they had increased responsibility.

Something of the family responsibility of the 3,463 persons registered is shown in Table 3, giving the number of dependents of the unemployed registered.

TABLE 3.—NUMBER OF DEPENDENTS REPORTED BY THE REGISTERED UNEMPLOYED

Dependents	Number of unemployed with the specified number of dependents			Dependents	Number of unemployed with the specified number of dependents		
	Men	Women	Both sexes		Men	Women	Both sexes
Number of children:				Number of other dependents:			
None	1,078	242	1,320	1	234	19	253
1	283	89	372	2	70	6	76
2	437	83	520	3	26	5	31
3	337	55	392	4	14	5	19
4	293	29	322	5	14	3	17
5	174	30	204	6	12		12
6	127	14	141	7	6	4	10
7	88	7	95	8 or more	12	2	14
8 or more	89	8	97				
Total [1]	2,906	557	3,463	Total [1]	388	44	432

[1] Both children and other dependents were reported in some families.

As is seen in Table 3, almost one-fourth of the total number of persons registered, or 859 persons, had four or more children. Of the families with dependents other than children, 72, or 16.7 per cent of the total, had four or more such dependents. A total of 8,096 dependents are reported for the 2,143 persons with one or more dependents, or an average of 3.8 dependents per person.

Period of Unemployment

IN PRESENTING data showing the length of time that registrants had been unemployed since leaving their last jobs, statistics are also given showing the number of persons registered as unemployed who reported that they had part-time work. For men the total was 309, or 17.6 per cent of the total, and for women 81, or 29.9 per cent. This information, as well as the distribution of registrants by period of unemployment, is shown in Table 4:

TABLE 4.—PERIOD OF UNEMPLOYMENT AMONG 2,024 MEN AND WOMEN REGISTERED AS UNEMPLOYED [1]

Length of time unemployed	Persons reporting unemployment for specified length of time					
	Men		Women		Both sexes	
	Number	Per cent of total	Number	Per cent of total	Number	Per cent of total
Under 3 months	285	16.3	53	19.6	338	16.7
3 and under 6 months	391	22.3	31	11.4	422	20.7
6 and under 9 months	396	22.6	38	14.0	434	21.5
9 and under 12 months	64	3.7	8	3.0	72	3.6
12 and under 18 months	165	9.4	34	12.4	199	9.9
18 and under 24 months	94	5.4	12	4.4	106	5.2
Over 2 years	49	2.8	14	5.2	63	3.1
Part-time work	309	17.6	81	29.9	390	19.3
Total	1,753	100.0	271	100.0	2,024	100.0

[1] A total of 1,439 persons, of whom 1,153 were men and 286 women, did not state how long they had been unemployed.

The fact that 16.7 per cent of the registrants stated that they had lost their last jobs less than three months before registration is cited as indicating that unemployment had not been decreasing in the months prior to the undertaking of this study. Attention is particularly called to the high percentage of persons who had been unemployed for a year or more, 17.6 per cent for the men and 22 per cent for the women. It is stated that the relatively high representation of women in the classes of unemployment of one year or more of duration may be accounted for by the fact that unemployment among other members of their families may have prompted women who had not worked for over a year to register for work again.

Unemployment in Foreign Countries

THE accompanying table shows detailed monthly statistics of unemployment in foreign countries, as reproduced from official sources, from May, 1929, to the latest available date:

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES[1]

Date (end of month)	Australia		Austria	Belgium				Canada	
	Trade-unionists unemployed		Compulsory insurance, number unemployed in receipt of benefit	Unemployment insurance societies				Trade-unionists unemployed	
				Wholly unemployed		Partially unemployed			
	Number	Per cent		Number	Per cent	Number	Per cent	Number	Per cent
1929									
May	[2]	-------	130,469	2,382	0.4	8,686	1.4	7,750	4.0
June	40,996	10.0	110,266	2,559	.4	11,194	1.8	5,723	2.9
July	[2]	-------	104,399	4,037	.6	16,452	2.6	6,003	3.0
August	[2]	-------	101,845	3,200	.5	15,614	2.5	7,159	3.5
September	52,480	12.1	104,947	3,492	.5	16,714	2.6	7,654	3.7
October	[2]	-------	125,850	3,261	.5	13,930	2.2	12,716	6.0
November	[2]	-------	167,487	6,895	1.1	13,176	2.1	19,832	9.3
December	56,801	13.1	226,567	15,761	2.4	29,309	4.6	24,289	11.4
1930									
January	[2]	-------	273,197	22,542	3.5	25,782	4.0	22,795	10.8
February	[2]	-------	284,543	16,085	2.6	31,222	4.9	24,175	11.5
March	63,144	14.6	239,094	14,030	2.2	28,469	4.5	22,912	10.8
April	[2]	-------	192,477	13,715	2.2	36,605	5.8	18,581	9.0
May	[2]	-------	162,678	12,119	1.9	38,761	6.1	20,424	10.3
June	80,595	18.5	150,075	12,226	1.9	41,336	6.5	21,380	10.6
July	[2]	-------	153,188	15,302	2.4	48,580	7.7	18,473	9.2
August	[2]	-------	156,145	17,747	2.8	51,649	8.2	[3] 18,232	9.3
September	90,379	20.5	163,894	23,693	3.8	61,623	9.9	[3] 19,356	9.4
October	[2]	-------	192,778	27,322	4.3	54,804	8.5	[3] 22,403	10.8
November	[2]	-------	237,745	38,973	6.1	76,043	12.0	[3] 28,408	13.8
December	102,900	23.4	294,845	63,585	9.3	117,167	17.0	[3] 37,339	17.0
1931									
January	[2]	-------	331,239	77,181	11.1	112,734	16.2	[3] 33,664	16.0
February	[2]	-------	334,044	[2]	----------	[2]	---------	[3] 31,602	15.6

[1] Sources: League of Nations—Monthly Bulletin of Statistics; International Labor Office—International Labor Review; Canada—Labor Gazette; Great Britain—Ministry of Labor Gazette; Austria—Statistische Nachrichten; Australia—Quarterly Summary of Australian Statistics; Germany—Reichsarbeitsblatt, Reichs Arbeitsmarkt Anzeiger; Switzerland—Wirt. u. Social. Mitteilungen, La Vie Economique; Poland—Wiedomosci Statystlyczne; Norway—Statistiske Meddelelser; Netherlands—Maandschrift; Sweden—Sociala Meddelanden; Denmark—Statistiske Efterretninger; Finland—Bank of Finland Monthly Bulletin; France—Bulletin du Marché du Travail; Hungary—Magyar Statisztikai Szemle; Belgium—Revue du Travail; New Zealand—Monthly Abstract of Statistics; U. S. Department of Commerce—Commerce Reports; and U. S. Consular Reports.

[2] Not reported.

[3] Figures computed in the Bureau of Labor Statistics from official report covering membership of unions reporting and per cent of unemployment.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Date (end of month)	Czechoslovakia		Danzig (Free City of)	Denmark		Estonia	Finland	France	Germany
	Trade-union insurance funds—unemployed in receipt of benefit		Number of unemployed registered	Trade-union unemployment funds—unemployed		Number unemployed remaining on live register	Number of unemployed registered	Number of unemployed in receipt of benefit	Number of unemployed registered
	Number	Per cent		Number	Per cent				
1929									
May	21,866	1.9	11,135	29,671	10.8	2,169	1,624	570	1,349,833
June	19,436	1.9	8,876	27,398	10.0	1,110	1,157	394	1,260,044
July	16,859	1.6	9,007	26,621	9.6	780	1,188	399	1,251,452
August	18,674	1.8	8,958	25,164	9.1	609	1,859	403	1,271,990
September	19,468	1.9	9,296	24,175	8.7	902	2,710	385	1,323,603
October	16,248	1.5	10,664	28,194	10.1	3,065	4,997	396	1,557,146
November	17,108	1.6	13,146	36,302	13.0	5,288	9,495	577	2,035,667
December	30,170	2.8	16,198	62,563	22.4	6,116	8,716	817	2,850,849
1930									
January	39,199	3.6	19,282	55,876	20.3	5,608	12,696	1,484	3,217,608
February	40,550	3.6	21,153	59,363	21.0	4,580	11,545	1,683	3,365,811
March	45,567	4.0	20,376	47,109	15.6	3,575	10,062	1,630	3,040,797
April	42,664	3.7	18,371	33,471	11.8	2,227	7,274	1,203	2,786,912
May	41,098	3.8	16,232	27,966	9.4	2,065	4,666	859	2,634,718
June	37,853	3.4	14,975	24,807	8.7	910	3,553	1,019	2,640,681
July	46,800	4.1	15,330	26,200	9.3	762	4,026	856	2,765,258
August	52,694	4.7	15,687	26,232	9.0	1,039	5,288	964	2,883,000
September	57,542	5.3	16,073	27,700	9.0	1,414	7,157	988	3,004,000
October	61,213	5.5	17,307	32,880	11.4	3,282	10,279	1,663	3,252,000
November	65,904	5.9	20,272	44,200	15.3	5,675	10,740	4,893	3,683,000
December	93,476	8.3	24,429	71,100	24.6	6,163	9,336	11,952	4,384,000
1931									
January	104,580	9.8	27,081	70,961	24.4	5,364	11,706	28,536	4,887,000
February	(1)		28,192	73,427	25.6	(1)	(1)	40,766	4,972,000
March	(1)		(1)	(1)		(1)	(1)	(1)	4,756,000

Date (end of month)	Germany					Great Britain and Northern Ireland			
	Trade-unionists					Compulsory insurance			
	Wholly unemployed		Partially unemployed		Number unemployed in receipt of benefit	Wholly unemployed		Temporary stoppages	
	Number	Per cent	Number	Per cent		Number	Per cent	Number	Per cent
1929									
May	419,373	9.1	315,191	6.8	1,010,781	900,562	7.6	276,922	2.3
June	393,749	8.5	308,699	6.7	929,579	884,549	7.4	279,108	2.4
July	395,202	8.6	315,739	6.9	863,594	881,189	7.4	296,318	2.5
August	410,481	8.9	322,824	7.0	883,002	918,550	7.7	280,332	2.4
September	442,312	9.6	315,150	6.8	910,245	937,795	7.9	265,627	2.2
October	498,604	10.9	319,489	7.0	1,061,134	992,769	8.2	261,711	2.2
November	634,790	13.7	351,947	7.6	1,387,079	1,061,618	8.8	263,987	2.2
December	922,681	20.1	389,278	8.5	1,984,811	1,071,849	8.9	272,371	2.2
1930									
January	1,004,787	22.0	501,950	11.0	2,482,648	1,183,974	9.8	336,474	2.8
February	1,076,441	23.5	593,380	13.0	2,655,723	1,211,262	10.0	371,840	3.1
March	995,972	21.7	576,153	12.6	2,347,102	1,284,231	10.6	409,785	3.4
April	926,831	20.3	553,098	12.1	2,081,068	1,309,014	10.8	451,506	3.8
May	895,542	19.5	552,318	12.0	1,889,240	1,339,595	11.1	516,303	4.2
June	896,465	19.6	578,116	12.6	1,834,662	1,341,818	11.1	569,931	4.7
July	930,777	20.5	631,903	13.9	1,900,961	1,405,981	11.6	664,107	5.5
August	984,384	21.7	670,466	14.8	1,947,811	1,500,990	12.4	618,658	5.1
September	1,011,820	22.5	677,627	15.1	1,965,348	1,579,708	13.1	608,692	5.0
October	1,061,570	23.6	693,379	15.4	2,071,730	1,725,731	13.9	593,223	4.8
November	1,167,930	26.0	721,658	16.1	2,353,980	1,836,280	14.8	532,518	4.3
December	(1)	31.7	(1)	16.9	2,822,598	1,853,575	14.9	646,205	5.3
1931									
January	(1)	34.2	(1)	19.2	3,364,770	2,044,209	16.5	618,633	5.0
February	(1)		(1)		(1)	2,073,578	16.7	623,844	5.0
March	(1)		(1)		(1)	2,052,826	16.5	612,821	5.0

[1] Not reported.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Date (end of month)	Great Britain	Hungary			Irish Free State		Italy		Latvia
	Number of persons registered with employment exchanges	Trade-unionists unemployed			Compulsory insurance—unemployed		Number of unemployed registered		Number unemployed remaining on live register
		Christian (Budapest)	Social-Democratic		Number	Per cent	Wholly unemployed	Partially unemployed	
			Number	Per cent					
1929									
May	1,123,216	787	13,266	8.8	24,256	8.6	227,682	8,713	1,433
June	1,117,807	787	13,921	9.5	(1)		193,325	10,970	1,236
July	1,154,129	801	13,964	9.3	(1)		201,868	13,503	1,205
August	1,155,803	833	14,007	9.5	21,834	7.8	216,666	19,650	1,008
September	1,181,862	783	13,922	9.5	(1)		228,831	16,835	1,582
October	1,234,388	967	14,215	9.7	(1)		297,382	17,793	4,204
November	1,285,458	1,033	15,910	10.3	26,186	9.2	332,833	19,694	8,479
December	1,510,231	1,107	19,181	13.0	(1)		408,748	21,349	8,134
1930									
January	1,491,519	1,161	21,533	14.5	31,592	11.1	466,231	23,185	9,263
February	1,539,265	1,120	21,309	14.8	(1)		456,628	26,674	8,825
March	1,677,473	983	21,016	14.6	(1)		385,432	28,026	6,494
April	1,698,386	906	20,139	13.7	26,027	9.2	372,236	24,305	3,683
May	1,770,051	875	19,875	13.6	(1)		367,183	22,825	1,421
June	1,890,575	829	18,960	13.0	(1)		322,291	21,887	779
July	2,011,467	920	19,081	13.2	23,393	8.2	342,061	24,209	607
August	2,039,702	847	21,013	14.5	(1)		375,548	24,056	573
September	2,114,955	874	22,252	16.0	(1)		394,630	22,734	1,470
October	2,200,413	999	22,914	16.7	20,775	(1)	446,496	19,081	6,058
November	2,274,338	975	23,333	17.0	(1)		534,356	22,125	8,608
December	2,392,738	935	24,648		(1)		642,169	21,788	10,022
1931									
January	2,613,749	953	26,191	19.1	26,167	(1)	722,612	27,924	9,336
February	2,627,559	965	27,089	19.8	(1)		765.325	27,110	8,335
March	2,581,030	(1)	(1)		(1)		(1)	(1)	(1)

Date (end of month)	Netherlands		New Zealand		Norway			Poland
	Unemployment insurance societies—unemployed		Trade-unionists unemployed		Trade-unionists (10 unions) unemployed		Number unemployed remaining on live register	Number unemployed registered with employment offices
	Number	Per cent	Number	Per cent	Number	Per cent		
1929								
May	10,820	3.0	5,276	9.3	4,694	12.5	18,000	119,877
June	9,987	2.6	(1)		4,337	11.3	14,547	105,065
July	12,030	3.1	(1)		3,999	10.2	12,417	97,297
August	12,701	3.3	5,226	9.4	4,245	10.7	12,493	90,094
September	12,517	3.2	(1)		4,854	12.1	15,525	81,848
October	13,639	3.5	(1)		5,682	14.0	18,420	91,035
November	20,941	5.3	3,018	5.6	6,256	15.4	20,546	125,066
December	48,609	12.3	(1)		7,693	18.9	22,092	185,314
1930								
January	56,535	13.9	(1)		7,786	19.0	22,549	241,974
February	50,957	12.5	4,348	8.5	7,851	18.9	22,974	274,708
March	34,996	8.6	(1)		7,503	17.8	22,533	289,469
April	28,421	6.9	(1)		6,701	15.8	19,829	271,225
May	26,211	6.3	5,884	10.9	5,239	12.2	16,376	224,914
June	23,678	5.5	(1)		4,700	10.8	13,939	204,982
July	29,075	6.7	(1)		4,723	10.8	11,997	193,687
August	32,755	7.6	7,197	13.5	5,897	13.4	12,923	173,627
September	35,532	8.2	(1)		7,010	15.7	17,053	170,467
October	41,088	9.6	(1)		8,031	18.0	20,363	165,154
November	[4] 46,807	11.8	8,119	15.5	9,396	21.4	24,544	209,912
December	[4] 72,191	16.5	(1)		11,265	25.5	27,157	299,797
1931								
January	[4] 103,728	23.4	(1)		(1)		28,596	345,300
February	[4] 99,753	22.2	(1)		(1)		29,107	(1)

[1] Not reported.

[4] Provisional figure.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Date (end of month)	Poland				Rumania	Saar Territory	Sweden	
	Industrial workers							
	Extractive and manufacturing industries—wholly unemployed		Manufacturing industries—partially unemployed		Number unemployed remaining on live register	Number unemployed registered	Trade-unionists unemployed	
	Number	Per cent	Number	Per cent			Number	Per cent
1929								
May	104,200	11.6	135,608	25.1	6,819	(1)	24,452	8.1
June	91,000	10.2	98,708	18.6	5,849	3,762	21,764	7.4
July	84,300	9.7	89,639	17.7	3,909	3,238	20,048	6.5
August	77,500	9.0	82,297	15.7	3,714	3,398	19,914	6.3
September	68,700	8.0	70,055	13.2	5,171	3,990	22,271	7.2
October	76,818	8.9	84,060	15.3	5,481	5,025	27,529	8.6
November	108,200	12.5	94,890	17.5	6,958	6,408	33,581	10.4
December	166,240	19.5	94,601	18.5	6,866	10,515	53,977	16.6
1930								
January	219,333	24.3	108,812	24.8	12,622	11,307	45,636	14.2
February	251,627	27.5	120,058	28.4	15,588	11,949	45,460	13.2
March	265,135	28.7	120,844	28.9	13,045	8,882	42,278	12.5
April	246,670	27.0	113,594	26.9	13,412	7,522	38,347	11.1
May	201,116	23.0	104,469	24.2	25,096	7,362	28,112	8.3
June	182,600	21.6	94,375	22.2	22,960	6,330	28,956	8.1
July	170,665	20.5	70,597	17.0	23,236	7,095	27,170	7.8
August	150,650	18.3	74,289	17.1	24,209	7,099	28,539	8.1
September	146,642	17.8	74,285	16.5	39,110	7,527	34,963	9.8
October	141,422	17.5	91,854	14.8	36,147	9,013	43,927	12.2
November	(1)		106,835	23.6	42,689	12,110	57,070	15.3
December	(1)		95,637	23.1	36,212	15,245	86,042	22.9
1931								
January	(1)		82,717	23.8	(1)	18,921	69,437	19.8
February	(1)		(1)		(1)	20,139	(1)	

Date (end of month)	Switzerland				Yugoslavia
	Unemployment funds				
	Wholly unemployed		Partially unemployed		Number of unemployed registered
	Number	Per cent	Number	Per cent	
1929					
May	(1)	(1)	(1)	(1)	10,583
June	(1)	0.7	(1)	1.0	9,017
July	(1)	(1)	(1)	(1)	7,652
August	(1)	(1)	(1)	(1)	5,790
September	(1)	.8	(1)	.9	6,755
October	(1)	(1)	(1)	(1)	4,739
November	(1)	(1)	(1)	(1)	5,026
December	12,309	4.2	9,805	3.3	5,663
1930					
January	10,523	4.4	10,710	4.4	8,508
February	9,971	4.1	11,445	4.7	9,437
March	7,882	2.6	12,642	4.2	9,739
April	5,203	2.1	12,755	5.3	12,052
May	5,356	2.2	13,129	5.4	8,704
June	5,368	1.7	17,688	5.7	6,991
July	4,751	1.9	15,112	6.2	7,236
August	5,703	2.3	19,441	7.9	6,111
September	7,792	2.5	26,111	8.3	5,973
October	7,399	3.0	23,309	9.4	6,609
November	11,666	4.7	25,793	10.5	7,219
December	21,400	6.6	33,483	10.4	9,989
1931					
January	20,551	8.3	30,977	12.5	13,387
February	(1)		(1)		[4] 14,424

[1] Not reported.

[4] Provisional figure.

Measures Against Effects of Prolonged Unemployment upon Workers in Foreign Countries

THE ill effects of prolonged unemployment upon the physical and mental well-being of workers, especially the young workers, are attracting the serious attention of government authorities, labor leaders, social workers, and others in a number of foreign countries beset with severe and prolonged unemployment.

If a person has been out of work for years, his physical ability and skill are often so much lowered as to make it difficult to resume his former regular trade should opportunity arise. His mental attitude toward life and work in general may also be unfavorably affected to a considerable degree.

If he is a young worker, out of school and training, and can not find a job for years, he then is still more apt to lose the benefits of his education and training and to undergo certain alterations in his character, such as the loss of self-respect, self-reliance, feeling of responsibility for others, etc.

The development in this direction constitutes a new complicated problem in the unemployment situation. The question is, what remedial measures should be applied?

Certain measures have been already introduced and others proposed in Great Britain, Germany, and Netherlands, as the following review shows.

Great Britain [1]

Unemployed young workers.—As early as 1919 an attempt was made, in connection with the so-called out-of-work donation scheme, to mitigate the ill effects of long-continued unemployment of boys and girls by organizing juvenile unemployed centers, at which unemployed boys and girls were required to attend.

These centers were conducted under local educational authorities and the cost was borne by the Exchequer. In April, 1919, the attendance of these centers was over 24,000 and in May of the same year there were in operation 215 centers.

The work of these centers consisted in physical training, organized games, teaching handicrafts, and other informal instruction and lectures. During later years this program has been considerably enlarged to include such subjects as woodwork, metal work, weaving, physiology and hygiene, first aid, nursing, English, history, drawing, painting, and other general knowledge.

Owing to various causes the number of these centers has fluctuated greatly from year to year and even from month to month.

The National Advisory Council for Juvenile Employment in 1929 recommended the continuation of provision for dealing with unemployment among boys and girls, by the establishment of centers or classes under the educational authorities of the area concerned, with the object of preventing deterioration and of facilitating their reabsorption into industry by maintaining or reestablishing, through further education and training, habits of discipline and self-respect.

[1] The data upon which this section is based are from annual reports of the Ministry of Labor for 1926 to 1929: Statement of the Principal Measures Taken in H. M. Government in Connection with Unemployment, December, 1930 (Cmd. 3746); and Ministry of Labor Gazette, November and December, 1929, and February, 1931.

These centers were to operate in all areas where there were sufficient numbers of unemployed boys and girls to justify their establishment. In other areas only classes in conjunction with some existing educational institution were to be conducted. These centers and classes were to be approved by the Minister of Labor, who should normally make grants equivalent to 75 per cent of the cost.

The unemployment insurance act, 1930, which came into effect on March 31, 1930, for the first time made it the duty of the Minister of Labor to arrange with local educational authorities for the provision of courses of instruction for such of the boys and girls as are claimants to unemployment benefit. The Government has accepted and put into force the recommendations of the advisory council on this point and in conjunction with local educational authorities has improved the machinery with a view to insuring as far as possible that every boy and girl who is out of work and claiming benefit shall be able to receive suitable part-time instruction. There were 107 of these courses open and about 65,000 attended them during the first eight months of 1930.

The advisory council reported on February 10, 1931, that considerable progress had been made in the establishment of courses of instruction. There were 45 new centers and classes opened in England and Wales during 1930. The proportion of juvenile claimants to unemployment benefit in attendance at these courses had more than doubled during 1930.

Unemployed adult workers.—The transference of the unemployed workers from depressed areas to work in other parts of the country has revealed the fact that in these areas prolonged unemployment has robbed many men both of the physical fitness and of the attitude of mind which would enable them to undertake heavy work under ordinary industrial conditions without having some opportunity, in circumstances under which their progress could be carefully observed, of accustoming themselves once more to regular hours and steady work.

In order to prevent the deterioration of workers who become unemployed, centers for training the unemployed, both men and women, were extended in scope during 1930. The training centers for men had an annual output of 8,500 and those for women of 4,400.

In addition, centers were opened for the rehabilitation of men who have suffered from prolonged unemployment, in order that they may be better prepared, both as regards physique and mentality, for regaining a footing in industry.

At the end of 1929 five Government training centers with a capacity of 1,200 had been opened. As the training lasts only from 8 to 12 weeks, these centers were able to train upwards of 6,000 men during a year. In 1930 the persons trained increased to 7,500. The work of these special centers consists in outdoor and indoor instruction and training.

When the men first enter these centers they have not done any steady work for some time and they are often undernourished. They are, therefore, started gradually. The nature and amount of work which each man is required to do is governed by his physical strength and general conditions. Good food and steady work produces marked progress in the normal case and as the man's condition

improves he is given more and harder work, being moved from one carefully graded gang to another; the last weeks of his course are spent under conditions which approximate as nearly as possible those of ordinary industrial employment.

Some men admitted are not able to do heavy work, and these receive a course suited to their physique. After training, such workers are directed to lighter employment.

The employment service exerts every effort to find regular employment for every man who has undergone a course of training in these centers.

Germany [2]

Unemployed young workers.—The leading German labor organizations, in cooperation with the organizations for public instruction and with the central committee of the German associations of youth, at the end of 1930 appealed to the Federal Government to provide for education of the unemployed, especially of young workers, suggested certain measures to be taken in this regard, and asked for a grant of money.

The chairman of the Central Office for Employment Service and Unemployment Insurance sent a circular to all district and local labor offices on December 20, 1930. The circular called special attention to the condition and needs of unemployed young workers who have been out of work for a long period of time, and directed the district and local labor officials to see to it that all the facilities provided for vocational education and training were utilized and that given directions were followed to the fullest in respect to training the young workers, especially during the winter months.

Compulsory public works.—In addition to ordinary public works there has been introduced a system of compulsory public works (*Pflichtarbeit*) for both young and adult unemployed workers in Germany.

The purpose of these compulsory public works is not so much the production of economic values as of educational and corrective values. This work may be required from young workers who receive unemployment insurance benefit or from adult unemployed workers who have exhausted both regular benefit and emergency allowances.

On February 26, 1931, a delegation of organized workers presented a petition to the President of the Republic, pointing out the severity of unemployment in Germany, and declaring that such severe and prolonged unemployment entails great danger for the future of German economic life.

Netherlands [3]

THE Dutch national trade-union center recently held a special convention for the purpose of dealing with the unemployment problem in that country. Among other resolutions adopted was one relating to the ill effects of unemployment upon young workers.

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[2] The data on which this section is based are from Gewerkschafts-Zeitung, Berlin, Jan. 10 and 31, 1931, pp. 26 and 76; and Vorwärts, Berlin, Feb. 27, 1931.

[3] Press Reports of the International Federation of Trade Unions, Amsterdam, Feb. 19, 1931.

In order to combat these ill effects, the labor unions propose:

(1) That the period of compulsory instruction should be increased from 7 to 8 years and should not end until the age of 16.

(2) Vocational training and general education should be promoted by making attendance at continuation schools compulsory up to 18 years of age.

(3) Up to 17 years of age young unemployed workers should, during periods of unemployment, be compelled to attend day classes giving theoretical and practical instruction in trade and industry, handicrafts, and general education. The teachers are to be taken when possible from the ranks of the adult unemployed persons, manual and nonmanual, and the whole work to be in collaboration with local youths' associations, labor unions, and other interested local organizations.

(4) Unemployment insurance benefit should be paid to all young workers under the age of 21 years, who are no longer under compulsion to attend school, on condition that they are registered as being in search of work at the employment office, and that when it is possible they attend the above-named educational classes.

English Unemployment Insurance Legislation

THE Ministry of Labor Gazette (London) states in its issue for March that a bill known as the "unemployment insurance act, 1931," recently passed both houses of Parliament and received the royal assent on March 3. The bill is short, containing only two sections. The first increases to £90,000,000 ($437,985,000) the limit upon the amount which the fund may borrow, while the second extends the period during which the transitional benefit, first authorized by the act of 1927, may be drawn.

Section 14 of the act of 1927 provided that persons over 18 years of age, making claims for unemployment benefit within 12 months of the coming into force of the act (on April 19, 1928) should be exempted for a further 12 months from compliance with "the first statutory condition," which requires the payment of 30 contributions in the two years preceding the claim. Such claimants, during the "transitional" period, have been required to prove the payment of only 8 contributions in the previous two years, or of 30 contributions at any time, provided they can show that they are normally employed in insurable employment, and will normally seek to gain their livelihood by such employment. The period of 12 months after the passing of the act was extended by subsequent enactments to 36 months; but, in the absence of fresh legislation, insured persons at present drawing benefit under the "transitional" provisions would have begun to fall out of benefit at various dates beginning on April 19 next. The present act maintains the right of such persons to claim benefit by extending the transitional period for another six months.

OLD-AGE PENSIONS AND RETIREMENT

Retirement Act for Panama Canal Zone Employees

PRESIDENT Hoover, on March 2, 1931, approved an act (Public Bill No. 781) for the retirement of employees of the Panama Canal and Panama Railroad Co. on the Isthmus of Panama. The act will become effective July 1, 1931, and will supersede the provisions of the civil service retirement act of May 22, 1920, as amended,[1] extending retirement benefits to those employees of the Panama Canal covered by that act.

Analysis of Act

Employees covered.—Employees of the Panama Canal and Panama Railroad Co. who are citizens of the United States and whose tenure of employment is regular on the Isthmus of Panama.

Retirement.—All employees covered by the act who have attained the age of 62 years and have rendered at least 15 years of service on the Isthmus are automatically separated from the service. Provision is made, however, for retention in the service for a term not exceeding two years, upon the certification by the Governor of the Panama Canal to the Civil Service Commission of the efficiency and willingness of the employee to remain in the civil service and that the continuance of such employee therein would be advantageous to the service. At the end of the 2-year term, by similar approval and certification, the employee may be continued for an additional term not exceeding two years. However, no employee may be continued more than four years beyond the retirement age, unless certification is made by the Governor of the Panama Canal, approved by the Civil Service Commission, that by reason of special knowledge and qualifications the continuance of such employee would be advantageous to the service, then further extensions of two years may be granted. Provision is made in the act for optional retirement of an employee two years earlier than he would otherwise be eligible, provided he has rendered 30 years of service. For example, an employee eligible to retire at 62 years may retire at the age of 60.

An employee may also voluntarily retire on an annuity equivalent in value to the present worth of a deferred annuity beginning at the age at which the employee would otherwise have become eligible for retirement, provided he has attained the age of 55 years and has rendered at least 25 years of service, 15 years of which must have been rendered on the Isthmus of Panama. Also, an employee may voluntarily retire provided he has attained 55 years of age and rendered 30 years of service on the Isthmus (absence during the World War included), of which three years at least must have been in the employment of the Isthmian Canal Commission, or between May 4, 1904, and April 1, 1914, in the employ of the Panama Railroad Co.

[1] See Labor Review, August, 1930, pp. 72–80.

Disability retirement.—Any employee who has attained the age of 55 years and has rendered 15 years of service on the Isthmus of Panama, who becomes physically or mentally disqualified to perform his duties because of the strenuous or hazardous nature of the work shall upon request be retired on an annuity as provided in the act. An employee who has had five or more years of service and who before becoming eligible for old-age retirement becomes totally disabled for useful and efficient service by reason of disease or injury not due to vicious habits, intemperance, or willful misconduct on his part shall, upon request or order of the Governor of the Panama Canal, be retired and allowed an annuity. Claims under this provision of the act must be applied for within six months from date of applicant's separation from the service. A medical examination by a medical officer of the United States or a physician designated by the Commissioner of Pensions is required. An annual examination of the employee is required (unless permanently disabled) until the regular retirement age. An annuity is discontinued upon recovery of the employee, or if he fails to appear for examination. No person shall be entitled to receive an annuity and workmen's compensation benefits at the same time, but the employee may elect to receive, for any part of the same period of time, whichever benefit is greater.

Employees 55 years of age or over who have served 15 years or more and become involuntarily separated from the service (not by reason of misconduct or delinquency) are also entitled to certain benefits.

Annuities and Refunds

THE ANNUITY allowed for old-age retirement under the act is—

(1) A sum equal to $37.50 for each year of service (not to exceed 30) either on the Isthmus of Panama or in the United States military or naval service in the Tropics; and

(2) The amount of annuity purchasable with the sum credited to the employee's individual account including accrued interest, according to the experience of the Canal Zone retirement fund as shown by the tables of annuity values prepared by the board of actuaries; and

(3) Thirty dollars for each year of service not allowed in (1) above, provided the years of service in (3) shall not exceed the difference between 30 and that allowed in (1); and

(4) Thirty-six dollars for each year of service in the employ of the Isthmian Canal Commission or the Panama Railroad Co., between May 4, 1904, and April 1, 1914.

It is provided that the total annuity paid (in paragraph (1)) shall not be less than an amount equal to the average annual basic salary (not to exceed $2,000) received by the employee during any five consecutive years (optional with the employee) multiplied by the number of years of service (not to exceed 30) and divided by 40. Under paragraph (3) the maximum amount is based on a salary not to exceed $1,600 a year. The annuity paid a retiring employee of the Panama Railroad Co. on June 30, 1931, shall be an amount equal to 2 per cent of the average annual basic salary (not to exceed $5,000) received by the employee during any five consecutive years (optional with employee) multiplied by the number of years of service rendered prior to July 1, 1931, and in addition to the amount to which the

employee is entitled under section 6 of the act, exclusive of paragraph (4) above, for service rendered after June 30, 1931. The annuity purchasable under paragraph (2) includes only contributions made after June 30, 1931. In computing the number of years of service under paragraphs (1) and (3) they shall not exceed the difference between 30 and the number of years of service rendered prior to July 1, 1931. Provision is made that in no case may the annuity exceed three-fourths of the average annual salary during any five consecutive years. An employee may elect to receive instead of the life annuity an increased annuity of the same value, with the condition, however, that no unexpended part of the principal at the annuitant's death shall be returned. The law provides that all periods of service shall be included for the purposes of the act and that the annuity shall be fixed at the nearest multiple of 12. All bonuses, allowances, overtime pay, or compensation given in addition to the basic salary, etc., shall be excluded from the operation of the act.

An employee 55 years of age or over involuntarily separated from the service after 15 years of service and before becoming eligible for retirement may elect to be paid either (*a*) the amount of deductions with accrued interest; or (*b*) an immediate life annuity beginning at the date of separation from the service, having a value equal to the present worth of a deferred annuity beginning at the age at which the employee would otherwise have become eligible for retirement; or (*c*) a deferred annuity beginning at the age at which the employee would otherwise become eligible for retirement computed as provided in section 6 of the act.

An employee in the service not less than 15 years and who is between 45 and 55 years of age and involuntarily separated from the service before the regular retirement age shall be entitled to a deferred annuity, and upon reaching 55 years of age may elect to receive an immediate annuity as provided in the above paragraph (*b*). The amounts deducted from the basic salary of each employee covering service rendered prior to the effective date of the act shall be credited to an individual account of such employee to be maintained by the Panama Canal, and amounts deducted after July 1, 1931, less the sum of $1 per month, shall likewise be credited to such individual account. An employee covered by the act who is transferred to a position not within the purview of the act or who becomes separated from the service before becoming eligible for retirement shall be refunded the amount credited to his individual account with interest at 4 per cent per annum compounded on June 30 of each year. The total amount of deductions is returned with interest whenever an employee is involuntarily separated from the service. If an employee reenters the service the refund must be redeposited with interest before the employee may derive any benefits under the act. In case of death of an annuitant after retirement, but before he has received in annuities purchased by the employee's contributions an amount equal to the total amount to his credit at the time of retirement, the amount remaining to his credit shall be paid in one sum to his legal representative unless the annuitant elected to receive an increased annuity. In case an employee dies without having attained eligibility for retirement or without having established a valid claim for an annuity, the total amount of his deductions with interest shall be

paid to the legal representative. If a former employee entitled to the return of the amount credited to his individual account becomes legally incompetent, the total amount due may be paid to a duly appointed guardian or committee.

The service which forms the basis for calculating the amount of any benefit is computed from the date of the original employment, whether in the classified or unclassified service. An employee may receive both a pension for military or naval service and an annuity under the act. However, if an employee elects to receive a pension under any law or retired pay on account of military or naval service or compensation under the war risk insurance act, the period of his military or naval service upon which such pension is based shall not be included. Periods of separation from the service and any leaves of absence without pay exceeding six months shall be excluded. The annuity is payable on the first business day of the month following the period for which the annuity shall have accrued, and the annuity commences from the date of separation from the service and continues during the life of the annuitant.

All employees of the Panama Canal or Panama Railroad Co. already retired under the provisions of the act of May 22, 1920, or the act as amended, or as extended by Executive orders, or under the provisions of the Panama Railroad pension plan, shall have their annuity computed and paid in accordance with this act, but in no case is the annuity to be reduced.

Those employees who left the service of the Panama Canal or Panama Railroad Co. on the Isthmus after August 1, 1920, and prior to the effective date of this act (not by reason of misconduct or delinquency) without having been granted retirement annuities due to the fact that all of their service which would be allowable under the provisions of this act was not considered in computing the total service, or who are otherwise eligible (by paying the necessary contributions), shall after July 1, 1931, be paid annuities in accordance with the provisions of this act.

Source of Funds

FUNDS are secured by deductions from the basic salary, pay, or compensation of all employees covered by the act, at the rate of 5 per cent of same. The amounts so deducted are deposited with the Treasurer of the United States to the credit of the "Canal Zone retirement and disability fund" for the payment of annuities, refunds, and allowances provided in the act. The act directs the Commissioner of Pensions to ascertain the amounts due employees under the act of May 22, 1920, and also directs the Secretary of the Treasury to transfer such amount to the separate fund to be maintained under the act. The directors of the Panama Railroad Co. on the other hand are required to transfer to the Secretary of the Treasury the gross assets in the Panama Railroad pension fund, for credit to the new fund.

All employees covered by the act are deemed to have consented and agreed to the deductions.

Employees who come within the provisions of the act after the effective date are required to deposit with the Treasurer of the United States to the credit of the Canal Zone retirement fund a sum equal to 2½ per cent of the employee's basic salary received for services rendered from July 31, 1920, to June 30, 1926, and 3½ per cent of the basic salary paid subsequent to the latter date, with interest at 4 per cent per annum. No such deposit is required for services rendered for the Panama Railroad Co. prior to January 1, 1924.

Administration

Commissioner of Pensions.—The administration of the act is placed in the Commissioner of Pensions under the direction of the Administrator of Veterans' Affairs. An appeal to the Administrator of Veterans' Affairs is allowed from a final order or action of the Commissioner of Pensions. An annual report is required to be made by the Commissioner of Pensions and reports and recommendations of the board of actuaries must be transmitted to Congress. The Administrator of Veterans' Affairs must annually submit to the Bureau of the Budget an estimate of appropriations necessary for the administration of the act. The Board of Actuaries must make a valuation of the fund at least every five years.

The Secretary of the Treasury is also directed to invest the funds in interest-bearing securities of the United States or in Federal farm-loan bonds. No part of the moneys mentioned in the act are assignable, subject to execution, levy, attachment, garnishment, or other legal process.

Old-Age Pensions Paid by Labor Organizations, 1930

IN 1930, according to information furnished to the United States Bureau of Labor Statistics, 11 of the 12 labor organizations which have old-age pension systems paid in pensions the sum of $3,403,180 to 13,049 pensioners. No data are available for 1930 for the Brotherhood of Locomotive Engineers, but from statements in the brotherhood magazine, it appears that benefits are being paid at a lowered rate and a radical revision of the pension fund of that organization is under consideration. Omitting that organization, in the 4-year period, 1927 to 1930, the number of pensioners of labor organizations has risen from 6,839 to 13,049—in other words, has nearly doubled—while old-age benefits have increased from $2,362,476 to $3,403,180, or 44 per cent.

The details for the various organizations which have pension plans are shown in the following table:

REQUIREMENTS FOR PENSION, NUMBER OF PENSIONERS, AND AMOUNT DISBURSED FOR PENSIONS BY SPECIFIED TRADE-UNIONS, 1930

Labor organization	Requirements for receipt of pension		Amount of pension	Number of pensioners	Amount paid in pensions, 1930
	Age	Membership (years)			
Bricklayers	65	20	$7 per week	2,037	[1] $744,718
Bridge and structural-iron workers	[2] 60	[2] 20	$25 per month	595	164,973
Carpenters	65	30	$15 per month [3]	5,000	658,350
Electrical workers	65	20	$42 per month	83	30,832
Granite cutters	62	25	$60 per year [4]	432	16,410
Locomotive engineers	65	1	$25–$65 per month	([5])	([5])
Locomotive firemen and enginemen	[6] 65	2	$30–$40 per month	652	246,540
Printers	60	25	$8 per week	3,188	[7] 1,186,024
Printing pressmen	60	20	$4 per week	398	72,436
Quarry workers	60	10	$50 [8]	[9] 13	650
Railroad trainmen	([10])	2	$30–$70 per month	505	165,445
Street-railway workers	65	20	$800 in lump sum	146	116,800
Total, 1930				13,049	3,403,180
Total, 1927 [11]				6,839	2,362,476

[1] Year ending June 30, 1930.
[2] After 15 years' membership regardless of age if disabled because of injury received at work.
[3] Paid quarterly.
[4] $10 per month for 6 months of the year.
[5] No data.
[6] Or younger, if disabled for work in the occupation.
[7] Year ending June 20, 1930.
[8] Flat sum, deducted from death benefit.
[9] Number paid lump sum in 1930.
[10] No age requirement, but must be totally and permanently disabled for work.
[11] Does not include 4,467 pensioners and $988,519 paid by locomotive engineers.

During the past few years the subject of old-age pensions for members has received a large amount of attention from labor organizations and several have considered the advisability of adopting a pension plan. In 1930, the annual meeting of the Amalgamated Clothing Workers passed a resolution favoring the establishment of both a home for aged and a pension scheme "if conditions permit it." The hotel and restaurant employees' union has established a "trail blazers' old-age pension fund" to which contributions are being invited from members, with the idea of accumulating money to be used eventually in the payment of pensions. The 1930 meeting of meat cutters and butcher workmen went on record as favoring the establishment of both a home for aged members and a pension plan. Under the action taken by the convention the approval of each local was necessary and this has now been obtained. An assessment of $25 has been levied on each member of the union, payment beginning in October, 1930, and continuing at the rate of $1 per month for 25 months. Pensions will be payable at 65, after 20 years' membership, and retired members will be given their choice of a pension of $30 per month or residence (himself and wife) in the home; the same option will be given to members disabled for work at the trade, after 10 years' membership. It is planned to finance the home by means of a live-stock and ranching business owned and operated by the union through a subsidiary company. The locals will be urged to erect cottages on

the ranch, to be occupied by retired members, who will perform such tasks as they are fitted for. It is remarked that in this way the organization will be "setting its members up in a business that is right next door to their life work." The plan also contemplates the education of orphans of deceased members.

Local No. 306 (New York City) of the Motion Picture Machine Operators' Union has recently established a pension system providing for pensions to members, disabled from accident or occupational disease, who have reached the age of 60 years and have been in good standing in the organization for 15 years. The plan went into operation January 1, 1931. The pension will be $25 a week. The funds will be raised at least in part by the operation of a truck advertising business which has been taken over by the union.

INSURANCE AND BENEFIT PLANS

Benefits Paid by Photo-Engravers, 1930

IN 1930 the local and international organizations of the photo-engravers paid in benefits to members the sum of $700,771 (not including strike benefits of $95,644), according to the March, 1931, issue of the American Photo-Engraver. The table following shows the amount paid for each type of benefit by the International Photo-Engravers' Union and its locals. Its membership in December, 1930, was 8,992.

LOCAL AND INTERNATIONAL BENEFITS PAID BY PHOTO-ENGRAVERS, 1930

Organization and benefit	Number of locals paying	Range of benefits	Amount paid, 1930
International organization:			
Death		$200	$16,200
Tuberculosis		$15 per week	31,256
Insurance (death and disability)		$1,000	81,000
Total			128,456
Local organizations:			
Death	[1] 15	$150–$1,735	45,723
Tuberculosis	7	$8.50 per month to $15 per week	(2)
Unemployment	[3] 15	$12 to $25 per week	482,163
Sickness	[4] 19	$7 to $22 per week	44,429
Total			572,315

[1] In 9 of these, benefits are paid through Pacific Coast Benefit Society.
[2] No data.
[3] In 1 of these, the benefit is a loan, to be repaid with interest.
[4] In 7 of these, benefits are paid through the Pacific Coast Benefit Society.

The question of the provision of benefits for old-age and disability as well as of unemployment benefits, came up for discussion at the 1930 convention. The executive council submitted data gathered by it showing the age and length of membership of the members. The data showed that 85 members would immediately be entitled to benefits under any old-age and disability pension plan; of these 85, only 15 were disabled because of old age. In view of the fact that a fund if created would therefore be used "primarily for incapacitated benefits, rather than old-age relief," and that many of the disabled "are comparatively young men, making restrictive measures somewhat impracticable, should we desire to assist all those in need," the committee considering the matter recommended that action be deferred, and its recommendation was accepted by the convention.

As for the proposed unemployment benefit, the executive council was directed to prepare suitable amendments to the laws of the organization, establishing an unemployment fund for which each member would be assessed $2.25 per month until a sufficient amount

was obtained, and from which benefits of $7.50 per week would be paid for not to exceed 20 weeks in any one year. This proposition was submitted to referendum vote of the membership, as directed by the convention, and was defeated.

Employees' Participation and Investment Plan of Kansas City Public Service Co.

THE employees' participation and investment plan of the Kansas City Public Service Co., Kansas City, Mo., by which the employees will share in the net income of the company after bond interest is paid, was adopted by the board of directors, effective January 1, 1931.

Under this plan the stockholders will set aside 25 per cent of the net income of the company for increased compensation to the employees and this participation will be determined quarterly on April 1, July 1, October 1, and January 1, and will be paid within 30 days after each quarter.

From the gross revenue of the company, plus the nonoperating income, will be deducted the following items, being the cost of conducting the business:

All operating expenses, which term includes wages, materials, and supplies for operation and maintenance, depreciation and other operating reserves, cost of injuries, and damages, insurance, etc.

Taxes, or reserves for taxes of every nature—city, county, State, and Federal.

Interest on bonds or notes, or other funded debts or obligations, fixed charges or reserves for fixed charges.

All employees who have been in continuous service with the company for one year will share in this fund except the chairman of the board, chairman of the executive committee, the president, the vice president and the vice president in charge of operations, and except those who violate the provisions of the contract of employment. Employees who have not served for one year will participate beginning with the first quarter after becoming eligible. Each employee's share will be based upon the proportion which his earnings for the quarter bear to the total pay roll of all eligible employees for that quarter.

Two methods for the distribution of the participation fund were voted upon by the employees, the first providing that the employees' share would be invested in the securities of the company and that certificates would be issued to each employee showing the amount of his interest in such securities, and the second providing for distribution in cash. The employees by a vote of 2,206 to 32 voted in favor of the first method.

Under the plan adopted an employee may sell his certificates (showing the amount of his interest in the securities owned) to another employee upon the approval of the trustees of the participation fund. When an employee has certificates equaling the amount of a full share of stock or a bond, or both, he may exchange them for the amount of securities they represent. Such securities may either be held or sold to anyone. Upon leaving the service an employee must cash in his certificates at the price for which the trustees can

sell the securities which the certificates represent. In the event of the death of an employee his estate must do likewise.

The directors reserve the right to cancel or change the plan at the end of any quarter, "in line with their inherent authority to fix and change wages." Any such action will not effect rights acquired under the plan prior to the date of any such cancellation or change.

Oregon Social Insurance Investigative Commission

AN INVESTIGATIVE commission on social insurance legislation was authorized to be appointed by the Governor of Oregon under the provisions of an act (Acts of 1931, ch. 151) approved March 4, 1931. The commission of three members is empowered to make a study of (1) old-age pensions, (2) old-age insurance; and (3) unemployment insurance. The results of the investigation are to be reported to the next regular session of the State legislative assembly, which will be in January, 1933.

The survey by the commission is to include "the investigation of plans for contributions by the citizens of Oregon, and the State, to a fund or funds to be created and administered by the State for the relief of the aged and the unemployed citizens of the State of Oregon." The commissioners appointed to conduct the investigation are to serve without compensation, but necessary traveling and other expenses, including the employment of clerical assistants within the appropriation limit of $1,500, are allowable.

Introduction of Group Insurance in Germany

THE Adam Opel Co., one of the leading manufacturers of automobiles in Germany, has concluded an agreement by which group life insurance totaling 12,500,000 marks ($2,975,000) was taken out on its employees.[1] This is the first instance of the adoption of this particular form of insurance in Germany. The experience acquired by American companies in this field was drawn upon and the policy is based, in its major aspects, on similar policies in the United States.

General provisions of the policy.—The monthly premium paid by the employee amounts to 1.25 marks (30 cents) entitling him to a coverage of 2,500 marks ($595). The amount of the premium remains constant and there are no restrictions as to age and physical condition of the employees. No medical examination is required. When an employee is discharged or quits of his own accord his policy becomes void, but in case of sickness, lay-off, or vacation, not exceeding six months, the insurance is kept in force under certain conditions. An employee who quits voluntarily has the right to convert his group insurance policy into an individual policy without a medical examination at advantageous rates and under favorable conditions. In case of complete and permanent disability before reaching the age of 60 the insurance will be paid in 40 monthly installments of 62.50 marks ($14.78) each.

[1] Report of C. W. Gray, United States vice consul, Berlin, Germany, Feb. 20, 1931.

Significance of policy.—In Germany social insurance (for old age, sickness, and unemployment) has reached a very advanced state of development, whereas group insurance had its origin in the United States. Hence, group insurance must be regarded by the German people as a supplement to the other existing forms of social insurance. It is certain that the people of Germany are "insurance conscious" and it is also true that the existing economic crisis with its attendant unemployment has subjected the present system of social insurance to the severest test. Nevertheless, just at the moment when the existence of the old forms of social insurance is threatened, group insurance has made its appearance in Germany. One provision of the agreement is that 75 per cent of the company's employees would have to enter before it becomes effective and it is important to note that within a month 90 per cent have signified their willingness to do so. It will be interesting to see if other large industrial organizations follow the example of this company.

Cost of Social Insurance in Italy

FROM an article in L'Organizzazione Industriale for January, 1931, entitled "Il Costo delle assicurazioni sociali" the following figures are taken showing the amount of contributions by the employers, employees, and the State for social insurance, and the number of workers insured:

NUMBER OF WORKERS INSURED AND AMOUNTS OF CONTRIBUTION BY EMPLOYERS AND BY EMPLOYEES

[Conversions into United States currency on basis of lira=5.23 cents]

Type of insurance	Year	Number of workers insured	Contributions by employers		Contributions by employees	
			Lire	U. S. currency	Lire	U. S. currency
Invalidity and old age:						
Compulsory	1929	5,700,000	208,707,000	$10,915,376	208,707,000	$10,915,376
Voluntary	1929				7,556,000	395,179
Certain classes	1929	600,000	34,056,015	1,781,130	23,503,000	1,229,207
Seamen	1929		15,265,848	798,404	11,054,579	578,154
Unemployment	1929	4,300,000	66,730,000	3,489,979	66,730,000	3,489,979
Tuberculosis	1929	5,700,000	67,783,366	3,545,070	67,783,366	3,545,070
Sickness (new Provinces)	1928	198,871	12,946,332	677,093	17,234,223	901,350
Maternity	1929	873,502	3,812,683	199,403	2,876,235	150,427
Sickness, seamen			[1] 8,000,000	[1] 418,400		
Industrial accident	1927		334,129,500	17,474,973		
Agricultural accident	1927		34,559,000	1,807,436		
Occupational disease			[1] 2,000,000	[1] 104,600		
Total			787,989,744	41,211,864	405,444,403	21,204,742

[1] Estimated.

In addition the State contributes yearly 1,500,000 lire ($78,450) for invalidity and old-age insurance and 742,914 lire ($38,854) for maternity insurance. From the above statements it will be seen that the employers contribute nearly two-thirds of the insurance fund.

PRODUCTIVITY OF LABOR

Growth of Mechanization in Agriculture and its Relation to Labor Productivity

THE increasing mechanization of agricultural operations in various countries, and its effect on agricultural employment, is discussed by the chief of the agricultural service of the International Labor Office in an article in the International Labor Review for March, 1931.

With the exception of the gathering of tree and bush fruits, which seems to defy mechanization, the writer states that there is not a process in connection with staple crops which has not received attention from the inventors of agricultural machinery, and certain processes having to do with work on living animals—such as shearing of sheep and milking of cows—have also been successfully mechanized. However, the difficulties of mechanizing agricultural operations are so great that only occasionally is a satisfactory invention launched, and when launched it naturally attains immediate popularity only in those centers which have an opportunity of knowing about it. When very striking it becomes internationally popular, but inventions capable of attaining an international status are comparatively rare. The need and desire for these mechanical aids is indicated by the adoption in each country of any device which offers real hope of assistance.

In Germany the number of farms using one or more machines increased from 391,746 in 1882 to 2,029,770 in 1925, in spite of a loss of national territory, although the number of farms using machinery in 1925 was less than 40 per cent of the farms in the country. Some of the machines in use were very small, but it is pointed out that a small device, such as a hand separator or a chaff cutter, may save a great deal of labor and that the increase in such small and simple machines is one of the greatest advances which modern agriculture can make in many countries. A simple form of seeding machine is reported to have become very popular in Germany, about a quarter of the farms of from 5 to 10 hectares (12.35 to 24.71 acres) owning such a machine.

The most striking feature of the mechanization of German farms, the article states, is the adoption of electric power, 12.6 per cent of all farms having some form of electricity installed in 1925, and nearly one-tenth of all primary power and one-fifth of the electric power belonged to agriculture. In England and Wales, on the other hand, the use of electricity on farms had made little progress by 1925. In these countries oil or petrol engines had attained great popularity and had increased in number from 6,911 in 1908 to 56,744 in 1925. The use of motor tractors, practically nonexistent in Germany, had grown rapidly, 15,000 having come into use since 1913. The use of steam engines in all three countries had declined. In the Union of South Africa, where the use of machinery in agriculture has been slowly increasing in recent years, the tractor suddenly became immensely

popular among farmers, the number imported in 1929 being 2,690 in comparison with only 167 in 1924.

Steady progress has been made in the mechanization of agricultural operations in France, but here, as in Germany, the most important development has been the rapid growth in the utilization of electric power. In France, and also in Czechoslovakia, the extension of electric power supply to rural communities has been assisted by legislation and the establishing of public funds for the purpose.

One of the most striking illustrations of the rapid increase in the use of a particular mechanical device in agriculture is the harvesting machine known as the combine. This, together with the tractor and the motor truck, is credited with having revolutionized the wheat-growing methods in the western Great Plains of the United States. The number of combines manufactured in the United States in 1929 was 36,957, as compared with 270 in 1914. A phenomenal increase has taken place in the use of these machines in Canada, the number in use in western Canada in 1929 being reported as 7,255 in comparison with only 2 in 1922. In Argentina the spread of the combine is said to constitute the most impressive movement in the adoption of new agricultural machinery, and it is used in the harvesting of 30 per cent of the wheat surface of the country. In fact, the article states, the spread of the combine in Argentina preceded by a few years its enthusiastic adoption in Canada and the United States. Of 68,755 harvesting machines of all kinds in Argentina in 1929, 21,755 were combines. The use of combine harvesters is said to be universal in Australia. A threshing device was attached to a certain type of Australian stripper, the combination being known as the stripper-thresher, of which it has been said that "it is a labor saver for Australian wheat growers to the value of many millions sterling. It put Australia on the map as a wheat-producing and exporting country * * * and saved in harvesting expenses as much per bushel as would rail the grain to the seaboard and freight it to Europe." The total value of the reaper-threshers or harvesters imported by Australia from Canada and the United States increased from £24,583 in 1922–23 to £135,195 in 1927–28.

"Thus," the article states, "some form of the 'combine' harvesting principle is in use in all the great grain-producing countries outside Europe." As regards European countries, "so intrinsically important is the combine that these countries have latterly felt compelled to investigate its use, even where at first sight it is unsuitable to their national systems of farming." In England, Germany, Italy, and France the first trials of the combine were made comparatively recently. In Hungary its use is said to be apparently unknown. The Union of South Africa first tried it out in 1929.

The merit of the "reaper-thresher" or "combine," as described by the writer, is that "it combines (whence its name) the cutting and the threshing processes on one machine; the binding and the stacking processes fall out entirely; and as the wheat is never bound up, it has neither to be unbound nor transported to be fed to the threshing drum; the grain falls threshed into the wagon accompanying the cutting mechanism, and this only needs to be emptied from time to time. Grains can be entirely machine-handled, not merely at certain points but from the field right through to the baking house."

In order to form a correct idea of what figures on the increased purchase of machinery in farming really portend, the writer points out that the social investigator "will keep his eye on the general steady advance in mechanization going on everywhere, and will note the gradual elimination of unsuitable machines in which at one time high hopes were placed; and on the other he will be particularly alive to the special developments which, with astonishing and dramatic rapidity, are likely to cause a revolution of methods in the districts where they can be applied. Statistics of the use of agricultural machinery, defective and very limited as they are in the first place, need a deal of interpretation before their social significance, i. e., their probable effects on the economics of farming and of farming labor, can be grasped."

The use of machnery will not, of course, change the essential nature of agricultural operations; crops will continue to grow in the spring, to flourish in the summer, and to ripen in the autumn. But machines will alleviate the necessity for calling on such an inordinate mass of outside seasonal labor at certain times of the year, especially if they take over essential "residual" operations; they will therefore be an important contribution to the very much needed decasualization of rural labor.

The machine becomes the seasonal thing, instead of the manual labor of human beings. For instance, a combine is in use for 12 to 15 days only during the whole year; if it works all day and all night, with a double staff, it may even finish its annual quantum of work in 5 to 8 days and then be laid aside for the whole of the rest of the year. Nevertheless, it is to be observed that, in Europe, the introduction of a great deal of machinery might eventually abolish the system of the winter maintenance wage, and the result might be to bring out more clearly the essentially seasonal nature of agricultural operations (the opposite result from that in America).

Effect of Mechanization on Output

THE following information, based on a report published by the United States Department of Agriculture in 1920, and quoted from the article under review, shows the very great increase in productivity resulting from the use of mechanical devices.

* * * One man, working without machinery, can take 28.1 minutes to unload 42 bushels of corn (maize) in the ear and 25.6 minutes to unload 85 bushels of oats; working with machinery he can complete these operations in 7.8 and 7.9 minutes, respectively. One man and 2 horses, working without machinery, can haul and spread 44 bushels of manure in 68.4 minutes; with a mechanical spreader, and working with 2, 3, or 4 horses, he can haul and spread 65 bushels in 45.6 minutes. One man, working by hand, can cut and shock 1.28 acres of corn per day; with the assistance of machinery and horses, working as the member of a crew, he can cover 1.9 acres, i. e., his performance rises 50 per cent; if, instead of husking the corn by hand, he uses a mechanical picker, his performance rises 35 per cent; and his work is not nearly so heavy.

In the course of an investigation of the use of agricultural machinery and its relation to labor in England and the British dominions, "horsemen in Australia, supplied with large teams and large machines, were reported as able to accomplish 'four to five times' as much work as a man driving the usual English 2-horse team. In New Zealand the larger plow machinery reduced the cost of man-labor, as compared with England, 'by two-thirds or one-half.' In Canada a gang of 7 men on an improved steel thresher worked at 'approximately double the rate' worked by 11 men on an English thresher; and so on."

A well-informed Canadian observer is reported to have stated that in one district in Canada 18 men supplied with improved machinery

were doing what would have been the harvesting work of 90 men five years earlier; in Canada, according to this authority, "on the modern mechanized farming basis on larger farms * * * one man does the work of four; * * * man-power is four times as effective in production-earning power as it was a decade ago."

Figures on the average value of production (at 1911 price levels) per person engaged in farming industries, in manufactures, and in all industries combined in Australia showed an increase in crop production from £135 in 1911 to £202 in 1924, and in dairying, from £315 to £560, while in manufactures the increase was only from £162 to £174, and in all industries combined, from £218 to £236. Index numbers of productive efficiency in 1924, based on these figures, and using 1911 as 1000, were 1505 for crop production and 1779 for dairying, as compared with 1075 for manufactures and 1079 for all industries combined. This dramatic rise in efficency in crop production and in dairying, as compared with the small increase for manufactures and for all industries combined has been "unhesitatingly ascribed to the large-scale introduction of machinery into these two branches of farming since 1911."

Although mechanization in farming, if it continues on any very considerable scale, means lack of employment for wage earners in agriculture, the writer states that opinions coming from agricultural workers' organizations have been "in the direction of supporting the modernization, i. e., the mechanization, of the agricultural industry," and that, moreover, "such opinions appear to be supported by the general body of workers, in spite of the fact that they are clearly menaced when there is an undue influx of rural labor into urban employments."

In connection with the expressed approval of agricultural workers' organizations of agricultural mechanization, two points have been made: First, that whatever steps are taken must be taken in consultation with the workers and, second, that the resulting mechanical saving must be for the good of the workers. The first point was made the subject of a resolution at the second congress of the International Federation of Christian Agricultural Workers' Trade Unions, held in 1928, in which "the workers claim the right to fullest collaboration in laying down the principles for, and in applying the details of, new rationalized arrangements."

The writer believes that the permanent benefits which may accrue to the workers may ultimately be reduced to two—saving of fatigue and shorter working time, the more fundamental in his opinion being shorter working time.

INDUSTRIAL AND LABOR CONDITIONS

Union-Management Cooperation on the Railroads

UNION-MANAGEMENT cooperation on the railroads is treated quite extensively in a recently published book on that subject, by Louis Aubrey Wood, associate professor of economics in the University of Oregon.[1]

The investigation and study made by Professor Wood shows that four major systems of rail transportation in the United States and Canada, having together about one-sixth of the total combined railroad mileage of the two countries, have adopted a union-management cooperative agreement with their mechanical departments.

The Baltimore & Ohio Railroad Co. began to test out a cooperative plan in its mechanical department in 1923 and accepted it in 1924 for the transportation department and the department of maintenance of way and structures, in addition to the mechanical department. Nine trade-unions have been pledged to cooperation on this railroad through its extension beyond the mechanical department. These include the Grand International Brotherhood of Locomotive Engineers, the Brotherhood of Locomotive Firemen and Enginemen, the Order of Railway Conductors of America, the Brotherhood of Railroad Trainmen, the American Train Dispatchers Association, the Order of Railroad Telegraphers, the Brotherhood of Railroad Signalmen of America, the Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employees, and the Brotherhood of Maintenance of Way Employees.

The Canadian National Railway Co. in January, 1925, introduced union-management cooperation in its mechanical department, and this system of cooperation is now effective on all the lines that it owns and operates except the Central Vermont Railway (Inc.), a subsidiary under independent management with mileage in the New England States, and the Duluth, Winnipeg & Pacific Railway Co., a directly managed subsidiary in Minnesota.

The Chicago & North Western Railway Co., in 1925, adopted a plan of systematized cooperation for its mechanical department, which now functions on all of its directly operated lines, although not on its subsidiary, the Chicago, St. Paul, Minneapolis & Omaha Railway Co.

The Chicago, Milwaukee, St. Paul & Pacific Railroad Co., established a plan of cooperation in its mechanical department in 1926 and has extended this plan to all its repair stations—130 shops, engine houses, and car yards.

No positive declaration is made in any of the cooperative agreements of the four rail transportation systems that such agreements would stabilize employment, but each system has enunciated a new

[1] Wood, Louis Aubrey: Union-Management Cooperation on the Railroads. New Haven, Yale University Press, 1931.

set of principles on the subject of employment, has authorized a regularization of employment in its mechanical department, and has made some progress in extending similar principles to its department of maintenance of way and structures.

The cooperative plan of the Baltimore & Ohio Railroad, according to the text of the agreement between it and the System Federation No. 30, was "intended to help the stabilization of employment on the Baltimore & Ohio Railroad, thereby producing a situation of satisfied and contented personnel with improved morale and consequent improvement in the service and production by greater and better quality of work." No agreement has been entered into between the Canadian National Railway Co. and its shop employees to stabilize employment, although executive officers of the system have asserted in writing at different times that every effort would be made to stabilize employment conditions. The Chicago & North Western Railway's systematized cooperative program of 1925 stated that regular employment would be of foremost advantage to the workers and also helpful to the company and gave assurance that an arrangement would be effected in the mechanical department which would "ultimately and without delay permit work being performed by the minimum number of employees consistent with the various classes of work available." The Chicago, Milwaukee, St. Paul & Pacific Railroad in its memorandum of principles for union-management cooperation proposed "to devise means and adopt ways to put into effect such manufacturing practices as would be of greatest assistance in lending security to employment."

According to statements made by the managements of the railroads having cooperative agreements, their employees in the mechanical departments have a keen interest in securing new and improved machinery in order that better work may be done. The superintendent of the passenger-coach department of the Milwaukee shop of the Chicago, Milwaukee, St. Paul & Pacific Railroad stated that during a period of 32 months from April 19, 1926, to December 26, 1928, about 90 articles of equipment were purchased on the advice of the cooperative committee and that no form of shop equipment is now secured except with the cooperative approval. In the program of cooperation issued by the Baltimore & Ohio Railroad in 1924, "tool equipment" was specifically mentioned as a topic that might be profitably discussed at local cooperative meetings. A cooperative bulletin, released at a western region shop of the Canadian National Railway System in 1927, pointed out that more harmonious relations would be maintained between management and men if all important changes in machine and other tool equipment were fully treated by cooperative committees before being put into effect.

It would seem from statements made by the managements of the railways adopting the cooperative plan that there had been a marked improvement in the relations between the managements and their employees.

Daniel Willard, president of the Baltimore & Ohio Railroad Co., states that "Under cooperation working contracts and the tasks to be performed on the railroad have remained fundamentally the same, but a different state of mind has been observable since its introduction both among the management and the men." He explains that "It

gives to every employee an enlightened and enlarged view of his own worth and importance as a part of the great organization known as the Baltimore & Ohio Railroad."

Sir Henry Thornton said: "The Canadian National Railway Co.'s purpose to secure a maximum of efficiency in all its services would only be obtainable through a combined effort on the part of the management and the men."

The management of the Chicago and North Western Railway in its cooperative program is "interested in the constant and efficient use of its shop facilities, and for the achievement of these aims is dependent upon the freely given help of its shop workers."

Studies of Industrial Relations

UPON request of the International Labor Conference, made in 1928, the International Labor Office has initiated a series of studies on industrial relations in specific organizations. The aim of the studies is to ascertain what the actual development has been in relations between employers and employees, both as regards relations in the works and negotiations between organizations. The first of the published studies projected under this plan has recently appeared.[1] It contains individual studies for five enterprises, namely, the Siemens Works, the Lens Mining Co., the London Traffic Combine, the State Mines of the Saar Basin, and the Bata Boot and Shoe Factory, located, respectively, in Germany, France, England, the Saar, and Czechoslovakia. These were selected rather as illustrations than as patterns, and cover a variety of industries, i. e., electrical manufacture, mining, passenger transport, and boot and shoe manufacture.

Siemens Works

IT IS stated that the history of the Siemens Works is closely bound up with the history of the electrical industry in Europe. Organized in 1847, the company pay roll at the time this study was made included 138,000 persons. The firm deals with various trade-unions because of the variety in types of workers. The firm has also a long tradition of workers' representation, and there are works councils in its various branches.

Annual leave with pay is given every worker with six months' service on April 1 of any year. The period of leave varies from three to eight working-days according to length of service. Special leave up to 18 working-days is granted for employees whose period of service is very long.

A unique provision of the employment system is that one disabled man must be employed for every 50 workers taken on. The central employment office is responsible for seeing that the number of disabled men does not fall below this quota.

An apprenticeship system is in force and systematic training is provided. About 100 apprentices start their apprenticeship yearly in five schools in various works. The course is generally of four years'

[1] International Labor Office. Studies and Reports, series A (Industrial Relations), No. 33: Studies on Industrial Relations. Geneva, 1930.

duration. Particularly able apprentices are given scholarships enabling them to attend craft schools of higher technical institutions and they may or may not return to the Siemens Works. Special training is also afforded for engineers, commercial apprentices, typists, and foremen.

Active cooperation against accidents and to improve health is found. Not only are general laws dealing with accident prevention and health matters enforced, but voluntary arrangements are entered into and a suggestion system is in force for improving conditions.

In addition to the statutory systems provided for insurance, workmen's compensation, and pensions, the Siemens Works provide additional pension and insurance benefits for which the company pays. Also, the workers are encouraged to participate in a group insurance system and to enter an arrangement for securing additional accident insurance. The company also gives end-of-the-year bonuses and jubilee gifts and offers a salaried employees' savings scheme.

Particular attention is paid to the welfare of the staff. Welfare machinery includes mess rooms, homes and institutions, library, clubs, and houses. In Siemensstadt, where many of the force are employed, the firm undertook the construction of a garden city in 1922, and 500 houses have been built, each with a garden.

Lens Mining Co.

DESTRUCTION of the mines of the Lens Mining Co. during the World War made it necessary to launch a costly and time-consuming reconstruction program before the mines could again be worked, and it was not until 10 years after the war that the mines reached their pre-war output. The company employs 20,000 workers in coal getting and auxiliary undertakings, such as a power station, coke furnaces, and a factory for synthetic ammonia production.

Because of the original isolation of the Lens mining concession it was necessary to set up complete workers' villages. In addition to these villages there are centers maintained by the company, providing health and social features. A complete center includes a dispensary with a doctor and nurses, a church, an infant school, boys' school, girls' school, school for housekeeping and sewing, a dressmaking shop, workers' club and sports club, and a branch of the cooperative society of company employees.

In the Lens mines, as in other French coal fields, there is a threefold system of industrial relations, in the pit (or auxiliary undertakings), in the company, and in the district. In fixing wages, action has been based mainly on variations in the cost of living.

Because of the postwar labor shortage in France, engagement of adequate labor has made it necessary to go outside the territorial limits of the country. Recruiting abroad is carried on through a central organization of employers, the Central Committee of the Collieries of France. This organization submits a statement of needs to the General Society of Immigration, a private organization set up to facilitate importation of labor. Workers secured receive traveling expenses for themselves, and 75 per cent of the traveling expenses of their families is refunded. The contract is for one year, during which time deductions are made from the worker's wages amounting to 45

per cent of the traveling expenses of his family. Upon termination of contract the employer's obligations cease.

Employment is judged to be fairly stable, because of the number of workers who have obtained medals for 30 years' continuous service with the company. Transfer of miners found physically unfit, from trying jobs to jobs requiring less strain, may be arranged. When dismissal becomes necessary, a week's notice is given and there is no procedure for appeal.

Wage earners are not entitled to paid vacations. Salaried employees, as well as overmen and overseers, have a week's vacation with pay, while engineers and higher officials have 21 days.

Coal allowances are made to workers, and housing is supplied at a nominal rent.

Accident, invalidity, and old-age insurance are governed by general legislation. Sickness insurance is carried out by the Mutual Aid Society of the Lens Mines, and equal contributions are paid by employer and worker. The Lens Mining Co. also grants special allowances to salaried employees or workers who have had 30 years' service with the company.

The social institutions provided are classed under child welfare work, workers' education, and workers' recreation and sports.

London Traffic Combine

THIS group of companies, forming what is officially known as the London Traffic Combine, is engaged in passenger transport within the area of Greater London. In addition to operating underground railways, busses, and street cars, the combine has its own power station and repair shops, carries on its own publicity and advertising, and operates a catering business. The total staff amounts to 44,000 persons.

The officer of the combine primarily concerned with industrial relations is the staff officer. His work includes the review and check of salaries, wages, hours, conditions of service, establishment and maintenance of records, conduct of the suggestions bureau, the conduct of the employment registry, etc.

The combine has relations with various joint bodies, employers' organizations, and trade-unions. Willingness is shown to negotiate with unions regarding conditions of work, but the combine reserves the right to decide on questions of management (including disciplinary matters).

The salaries of persons in clerical and technical positions are reviewed twice a year. Besides the regular promotions, there are merit increases and lump-sum bonuses.

Annual leave with pay is provided in varying amounts. For example, on main-line railways 6 week days are given after 12 months of service. Other groups have up to 8 days after 12 months of service.

Training and education are used to develop men to take over supervisory and executive responsibility and to train conductors, drivers, and inspectors and even restaurant attendants. Thus, there is a railway training school, an omnibus training school, and a cookery school.

Accident prevention is the responsibility of the principal officers of local units. One means of coordinating their efforts is by the use of bulletins and literature issued by the National Safety First Association of London. First-aid equipment is provided in accordance with requirements under the factories act.

Insurance, workmen's compensation, pensions, and friendly benefits are extended beyond the statutory requirements, the combine providing a superannuation fund for the administrative staff, pensions to supervisory staff, and ex gratia pensions and grants. There are also a number of voluntary schemes administered by the staff.

The various companies under the London Traffic Combine pay particular attention to welfare. Mess rooms, sport associations, institutes for social and educational purposes, and a staff magazine are a part of the welfare program.

State Mines of the Saar Basin

DISCOVERY of coal in the Saar Basin was the dominant factor in the development of a densely populated industrial area there. On October 31, 1929, the registered staff of the Saar mines included 60,359 manual workers and 3,391 engineers and salaried employees. The organization is described as made up of: "A purely French management, an entirely German staff of manual workers, and a staff of salaried employees composed of both Germans and Frenchmen—these are the human factors, so to speak, of the problem of industrial relations in the Saar, which for this reason assumes the dimensions of a problem of international administration."

The German employees are represented in six trade-unions. In addition, the staff of French employees has formed a union of about 400 members and only the French engineers remain outside any trade organization. When agreement can not be reached directly between the unions and the general directorate, controversial matters must be referred to the administrative board in Paris, or to the Minister of Public Works, to whom the whole administration of the mines is subordinated.

Technical education is an important feature, for by this means the administration is provided with the necessary staff. An interesting innovation introduced by the French administration has been payment in full of pupils in the school of mines during the whole period of study.

No special department of safety is maintained. The police regulations for the mines leave it to the management of a mine to decide whether timbering is necessary. Measures have been taken for increased and more efficient ventilation, and the use of explosives is intrusted to trained shot firers only.

All workers of 18 years of age and over are entitled to a vacation of 3 days after 1 year of service, 4 days after 2 years, and 6 days after 3 years or more.

Little has been done by the mines administration in the way of direct social work. Provision stores which were supplied in early days proved unsuccessful, and this work was accordingly left to workers' cooperative societies. The extension of administration housing has also been abandoned, and instead, in 1925, money to the

amount of 7,000,000 francs was advanced to the miners' insurance fund in order that more funds might be available to grant loans to workers who wished to own dwellings. The sum loaned has now been repaid, and no new loans have since been granted by the administration.

Bata Boot and Shoe Factory

SOME 10 years ago Zlin, Czechoslovakia, was an isolated village. Within it, during the intervening decade, has developed what to-day is the largest boot and shoe factory in Europe. By 1928, the Bata Boot and Shoe Factory was employing 12,000 workers and its production was 75,000 pairs of shoes a day.

Two main properties are included in the Bata undertaking, a factory center surrounded by a circular wall, and a town with shops, restaurant, motion-picture theater, workers' houses, schools, a boarding house for girls, and a lodging house for apprentices.

Production is prorated for two 26-week periods in the year and a special department, the central department, is responsible for seeing that nothing prevents the production plan from being carried through.

Bata, the founder of the enterprise, has sought to make the worker feel that he is a partner in the undertaking at Zlin and not just working for wages. Teamwork constitutes the best system of control. Workers who through carelessness reduce the output of their particular group are reprimanded and, if necessary, eliminated by their own mates. Bata himself maintains absolute authority and reserves the right of being final arbiter in any internal dispute that may arise. However, he must accept the works council provided for in Czechoslovak legislation.

A new worker is on probation for two weeks. He receives a contract setting forth conditions of employment and weekly wages, and any change in duties makes it necessary for his contract to be renewed.

Young workers are taken on who can be trained in the establishment. Apprenticeship is favored, and both general and technical education are provided. From his first week at Zlin the apprentice earns a wage adequate for maintenance.

One week's leave with pay is granted annually to all members of the staff. For this purpose a week's pay is the average week's pay earned during the year. Preference is given to a general plant shutdown, rather than a system of granting workers leave in turn.

About 30 per cent of the entire staff shares in the profits. Half of the profit earned is distributed each week and the other half is paid into the factory account to draw interest at 10 per cent for the owner. As regards unemployment insurance a difficult situation exists. Czechoslovak law provides that only trade-unionists are insurable, and only a small proportion of Bata employees are therefore eligible.

The medical department of the factory is responsible for prevention of accidents, industrial hygiene, lighting, dust removal, and general protection of health.

A social department is intrusted with the general administration of the various institutions. It is an autonomous organization, with an annual budget, housed in a special building. In addition to its duties of administering the nursery, schools, etc., this department organizes entertainments and administers the birth bounty in the form of a

savings account which is added to annually as long as the father or mother of a child remains with the factory.

Housing, food, and clothing at cost, and hospitalization, are also a part of the industrial relations program in the Bata Boot and Shoe Factory.

New Ministry of Labor, Industry, and Commerce in Brazil

BY EXECUTIVE decree (No. 19433) of the Provisional Government of Brazil, a Ministry of Labor, Industry, and Commerce was established on November 26, 1930, under the direction of Lindolpho Collor, according to a report from vice consul Leo P. Hogan, at Rio de Janeiro, dated January 13, 1931.

The institutions and services which will be combined in the new ministry include the National Labor Council, the Superior Council of Industry and Commerce, the Department of Industry and Commerce, the Land Settlement Service, the Commercial Board of the Federal District, the Department of Statistics, the Institute of Commercial Expansion, the Information Service, the Indian Service, the Department of Industrial Property, and the Board of Brokers of the Federal District, all of which formerly belonged to the Ministry of Agriculture. It will also include the Department of Commercial Statistics, the Social Welfare Institute, and the Savings Fund, formerly under the Ministry of Finance, the Merchant Marine and Coasting Trade Service, transferred from the Ministry of Transportation and Public Works, and the Economic and Commercial Services and Commercial Attachés of the Ministry of Foreign Affairs.

According to a communication received by the Bureau of Labor Statistics, under date of March 23, Bandeira de Mello has been appointed general director of the National Department of Labor, under the Ministry of Labor, Industry, and Commerce.

Report of English Cotton-Textile Amalgamation

IN 1928 and 1929, in view of the depressed condition of the cotton-textile industry, a number of the companies united, hoping that the economies which could be effected under a merger and the more efficient methods possible in large-scale production might serve to revive the industry. The largest of these amalgamations was the Lancashire Cotton Corporation (Ltd.), which included 70 plants and was formed with the assistance of the Bank of England. Its plan was to apply the benefits of united effort to every branch of the industry, from the provision of raw materials to the disposal of the finished product. (See Labor Review, March, 1929, p. 67.)

The directors of the corporation have recently issued their report for the year ending October 31, 1930, showing that at that time its authorized capital was £3,772,995 ($18,361,280), that its assets in the way of land, buildings, cottage property, plant and machinery, and the like, amounted to £5,801,103 ($28,231,068), that during the year £95,020 ($462,415) had been spent on improvements, and that the

relative earning power of the plant had been increased by a considerably larger amount.

The profit and loss account for the year shows a net loss of £162,368 [$790,164], which, the directors state, is partly due to the writing down of stock values to the extent of £86,300 [$419,979]. The remainder represents actual mill trading losses, principally caused by the small percentage of machinery which had been worked.[1]

New Survey of London Life and Labor

THE Labor Review for October, 1930, contained an article upon the new survey of London life and labor, outlining the task undertaken and giving a brief synopsis of what the study, when completed, will cover. The first volume of the report, Forty Years of Change, has now been issued, and gives a summary of the trends observable along certain lines. The survey was undertaken in 1928 by the London School of Economics and Political Science, with the general purpose of repeating, as closely as possible, the study of London life and conditions made by Charles Booth approximately 40 years ago.

Tendencies Summarized

THE survey as a whole is expected to appear in 17 volumes, the first one being merely introductory and presenting a summary of some of the major tendencies studied. Apart from the general introduction it contains chapters on the area and population of the region studied, the cost of living, wages, hours of labor and earnings, house rents and overcrowding, travel and mobility, health, education, public amenities and means of recreation, London occupations and industries, unemployment and its treatment, poor law relief, and crime in Greater London. Each of these chapters, based, of course, on the material secured during the survey, is drawn up by an authority on the subject treated. The general purpose of this preliminary volume is to discover, if possible, whether in the region covered by Charles Booth's study, the condition of the working population has improved or worsened, and in what respects movement in either direction has occurred. There is much difficulty in drawing conclusions. Population has shifted, so that it was impossible to follow Booth's limits precisely; standards have changed, so that his measurements are no longer applicable; practically the whole system of social insurance has been built up, preventive health work has been developed, and other far-reaching social measures have been introduced, so that innumerable allowances have to be made, and conclusions, at least on the basis of the data so far collated, can be drawn only tentatively.

In general, the average density of the area covered has undergone little change, the 57 persons per acre of 1891 having risen to 60 in 1928, but the distribution of the population has shifted, the inner boroughs being less populous, while in the outer boroughs density has increased. The age distribution of the populace has changed markedly, owing in part to the killing off during the war of men in their prime, and in part to the decline in both the birth and the death rate.

[1] Data are from Manchester (England) Guardian, Mar. 19, 1931, p. 9.

"For every thousand women of ages 15 to 45, 121 children were born in London in 1891 and only 83 in 1921. * * * Meanwhile the crude death rate has fallen from 21.1 to 12.1, so that the rate of natural growth by excess of births over deaths has declined from 10.8 to 4.1." Occupational changes can hardly be computed, owing to differences in the census classifications, but some tendencies are visible. Thus, the building, metal, and engineering trades have expanded, and women are far more generally employed in industrial, business, and professional occupations, while at the same time there has been a decline in the number in domestic service and dressmaking.

Cost of Living

THE difficulties in the way of making a satisfactory comparison of the cost of living at two different periods are well understood and are given full weight in this study. The ordinary objects of expenditure are divided into two groups, first, the essentials comprising food, clothing, rent, and fuel and light, and second, objects outside of this list, such as alcoholic drink, tobacco, travel, and amusement. It is only for the first group that it is possible to construct comparative long-period indexes. Confined to this group, the cost-of-living index has risen from 100 on the average of 1889–1891 to something between 180 and 187 on the average of 1926–1928. On the same basis the separate indexes are as follows: Food, 174; fuel and light, 195; rent, 171; and clothing, something between 228 and 253.

For the second group of expenditures it is not possible to give definite indexes, but in general it is known that prices of objects in this group have risen far more rapidly than the price of necessaries, with the exception of travel and possibly also of amusements. Beer prices have risen enormously, but the quantity consumed per head in London has decreased by about two-fifths, or, if measured by alcoholic content, by one-half (from about 46 to 23 standard gallons per annum). Tobacco consumption per head has more than doubled, and as the price of the most popular brands of tobacco has also more than doubled, the average expenditure on this item must be more than four times as great as in 1890, a fact which suggests a greater level of comfort among the workers, since a larger part of the income can be devoted to nonessentials.

Wages and Earnings

AVERAGE wages in London are discussed in much detail, and the conclusion is reached that weekly full-time rates, expressed in money, have risen about 106 per cent for skilled, and about 130 per cent for unskilled labor, or, for skilled and unskilled occupations taken together, by between 110 and 120 per cent. The increase in real value has been about 14 per cent for skilled and 28 per cent for unskilled workers. Meanwhile, hours of work have been lessened, so that in the lower-paid occupations the value of real wages per hour of work has risen by from one-third to one-half. Women's wages have risen, roughly, by something like 130 per cent, an increase corresponding fairly closely with that of unskilled occupations generally.

As far as the worker's welfare is concerned, the wage rate is not so important as the earnings, and these are difficult to compute, since overtime, piecework, short time, and unemployment must all be considered. Reasons are given for thinking that while both unemployment and loss of earnings through absence due to illness have probably increased slightly since Booth's time, their effects are more than offset by the benefits resulting from health and unemployment insurance. Making all necessary allowances, the conclusion is reached that the real average weekly earnings of male workers in London have risen about one-third since the first survey was made. If it could be assumed that this increase is equally shared throughout all classes and by all individuals very satisfactory conclusions could be reached.

For an increase of one-third in the real earnings of every worker would suffice to lift the whole of Charles Booth's classes C and D above the so-called poverty line, together with an appreciable proportion of those more deeply sunk in poverty, who were included in his class B. The effect of such a transfer would be to reduce Charles Booth's proportion of poverty from over 30 per cent to less than 8 per cent at the present time.

Warning is given, however, that such a conclusion can not be drawn from the data so far studied, since it is entirely possible that there might have been a concurrent increase at both extremes, the increase of poverty being more than offset in the general average by the growth of numbers and earnings of the well-to-do. Nevertheless the fact that the rate of wages of the unskilled has risen more rapidly than that of skilled workmen suggests that the percentage of poverty must have decreased, and in addition, "the real privation, suffering, and apprehension endured by those still living in poverty have been largely reduced by the operation of various forms of public social services."

Tests of Well-Being

Various factors apart from real wages have a bearing upon the question of the general level of well-being in a given population. One is the number and proportion of those who are in any marked degree subnormal. The inmates of common lodging houses and casual wards and homeless persons obviously fall below the normal standard of family life, and in this respect there has been a marked improvement since Charles Booth's time. The number of inmates of common lodging houses has been halved within the last 40 years, and all available data as to vagrants and homeless poor suggest that this subnormal element of the London population is much smaller than when the first survey was made.

Concerning cases of mental deficiency, the data secured are unsatisfactory, but do not appear "to justify the belief that during the past generation there has been any increase in the incidence of new cases of mental deficiency in London as distinguished from the effects of longer survival." Statistics as to poor relief are equally unsatisfactory as a measure of the changes which have taken place, because of the extent to which the number receiving relief at any time depends on the public attitude toward such help. At the time of the first survey there was a strong attempt at "deterrence," and as a consequence, outdoor poor relief was limited as strictly as possible to the

sick and aged, help to the able-bodied being made difficult to secure and carrying with it a marked stigma. For some time past the tendency has been markedly in the other direction, with the result that a larger number of persons (including many whose economic conditions are not subnormal) are now willing to avail themselves of public assistance.

The fact that poor relief has been made less repellent and unpopular, together with the vast increase of the social services, has one immediate consequence for the London survey, viz, that the life of members of Charles Booth's Class B and of many members also of Class CD has been profoundly altered since he described it 40 years ago. Quite apart from any decrease in the number of those living below the "poverty line," the most dreaded features of that life have been largely removed. We may still describe these classes as "poor" and "very poor," but we no longer have to think of them, as Charles Booth regarded them, as hanging on the brink of a gulf of destitution.

In the matter of crime, results are more definite. Between 1893 and 1928, crimes of violence decreased from 94 to 61 per million of population, and crimes against property also decreased, though such offenses as obtaining money by false pretenses and other frauds show an increase.

Cases of drunkenness have dropped from 5,824 [per million of population] to 3,814; "a large reduction but less than that for the whole country." This decrease is of course attributable in large measure to the restrictions on drinking through high taxation and limited hours. There are very many fewer offenses connected with destitution, e. g. cases of begging and "sleeping out" (under the vagrancy acts) have shrunk from 522 in 1893 to 223 in 1927. * * * The statistics of sexual crimes are inconclusive, but on the whole Sir Edward Troupe infers that "the standard of sexual morality is lower."

It will be seen that while the data as yet available concerning the subnormal, the criminal, and the economically insufficient classes do not afford an adequate basis for final conclusions, they are sufficient to suggest strongly that there has been an improvement in the general situation since the time of the Booth survey.

Housing and Transportation

THE survey next takes up the question of how the physical and cultural environment of the average worker has changed and how far he is able with his increased earnings to obtain a fuller and higher life.

Housing is one of the most important environmental influences, and in respect to the problem of overcrowding, developments have been unsatisfactory. The pre-war decline in the building trades had increased overcrowding, and the effort since the close of the war to increase building by public subsidies has not been conspicuously successful. Exhaustive data are brought forward in regard to this question.

The conclusion to be drawn from a study of all these statistics is that while housing conditions in London, as measured by the degree of overcrowding, were not quite so bad in the year 1921 as at the time of the Booth survey, the rate of improvement had been far from satisfactory, and that such upward movement as was in progress in the earlier years had very appreciably slowed down since the arrest of building activity in the earlier years of the present century, followed and aggravated by the almost total suspension of house building during the war. In the outskirts of London, where housing conditions are still much less congested than near the center, the evils of overcrowding actually increased in the decade 1911–1921.

In the meantime, however, transport facilities in Greater London have increased strikingly, and the habit of using them has grown in equal degree, a fact which has had a decided influence upon the distribution of population, its recreational habits, and the chance of its escape from the increasing pressure of congestion in the central areas.

Health

In spite of overcrowding and its attendant evils, the vital statistics of London testify to a remarkable improvement in the health of its population. The outstanding fact is that the death rate has declined from 20 per 1,000 in 1890–1894 to 12 per 1,000 in 1924–1928, or if the necessary correction be made for the abnormal age and sex distribution of the population in the later period, to about 13 per 1,000, a fall of nearly 40 per cent. This fall is part of a movement extending over a much longer period. From about 1841 onward a series of health campaigns produced a marked improvement in the health of the London population, but for a long time the infant mortality rate remained almost stationary, and it is only within the last 25 years that it has shown a striking improvement. A very important factor in this result was the education act of 1870, and its influence was increased largely in later years by various forms of social work carried on under the child welfare schemes, the medical inspection of school children, and the children's act.

During the past half century the population of London has gradually been transformed into an educated population.

"A reading and discriminating public has been substituted for an illiterate and ignorant public, and though intelligence may not have kept pace with knowledge, a public opinion has grown up which now supports instead of thwarting the efforts of the sanitary reformer. The progress of public health has benefited immeasurably both from the direct and from the indirect effects of the London education service. A single example is afforded by the striking fall of infant mortality, and by the saving of child life, which came about as soon as a generation which had passed through the primary schools had become parents of a new generation."

Education

The transformation of an illiterate into an educated population has many effects besides the change in attitude toward health matters, and the survey devotes some space to a consideration of the changes in the educational opportunities of the London workers. In 1851 there were about 190,000 children, or less than one-half of the children of elementary school age, in some sort of school. The education act of 1870 began to operate in 1871, and by the time of the Booth survey the percentage of those between 5 and 14, the compulsory attendance ages, in efficient schools had risen to nearly 92, and at present it is fairly constant at between 98 and 99 per cent. It is estimated that at the present time approximately 95 per cent of the parents of London working-class children have passed through efficient schools and have at least an elementary education. Meanwhile there have been other changes of hardly less importance.

For example, there has been a marked increase in regularity of attendance, together with a lengthening of the period of compulsion, the net result being a gradual lengthening of the effective duration of elementary school life. Concurrently there has been a steady improvement in the standard of the education

given in the schools, of which a very significant index is the great increase of the teaching force in proportion to the number of pupils.

Equally important has been the increase in the provision for secondary school education for working-class children. At the time of the Booth survey less than 1,000 children from elementary schools held scholarships in secondary schools. "At present the total is at least eight times as great, and no less than half the pupils of London secondary schools must have passed through elementary schools."

Amenities and Social Services

CHIEF among the amenities now provided for the public are parks and open spaces, with band concerts, playgrounds for the children, playing fields for the youths, swimming pools, cycle tracks, and the like. Along with these have come numerous other provisions for recreation and healthful development such as in 1891 were scarcely thought of as possible.

The growth of the social services, however, has had a much more important influence upon the lives of the workers. These have practically all been provided since the days of Charles Booth, and during this period there has been a marked change in the attitude toward public assistance.

A mere list of these public benefits is impressive. They include old-age pensions, national health insurance, unemployment insurance, war pensions, widows' and orphans' pensions, maternity and child welfare services, public health services such as those for tuberculosis and venereal disease, acts for the State assistance of the blind, and various free provisions associated with education, and we are coming more and more to realize that these rapid developments represent a fundamental change in the relation between the State and the individual. Individual lives are now controlled and cultivated under the direct intervention of a more elaborately organized community, and the poor law, instead of standing by itself as something essentially alien from the other factors of a citizen's life, is coming to be regarded as only one among similar collective activities.

To some of these services, it must be remembered, the beneficiaries contribute directly, but to a large extent their cost is borne by the public generally.

Summary

THE editors of the present volume are extremely careful not to present definite conclusions, and to point out that much study must be given to the data assembled before it will be possible to evaluate the changes which have taken place in 40 years. The reader, however, can hardly avoid the impression that in most respects there has been an advance since the days of Charles Booth. The real value of wages has increased, families are smaller so that a larger proportion of the earnings is available for other purposes than bare subsistence, health has improved, serious crimes against person and property have decreased, opportunities for education and recreation have improved, and, though there are whole areas of poverty, there is less actual destitution. Moreover, the growth of the social services has thrown a safeguard around the worker and lessened appreciably the dread of utter shipwreck which forms one of the most terrifying aspects of poverty.

Slavery and Forced Labor in Liberia

THE following is a résumé of the findings, suggestions, and recommendations of the Report of the International Commission of Inquiry into the Existence of Slavery and Forced Labor in the Republic of Liberia, presented in September, 1930.[1] The commission was appointed in accordance with a proposal by the Liberian Government to the president of the Council of the League of Nations. The members of the investigating body were Dr. Cuthbert Christie, of the League of Nations, chairman; Dr. Charles Spurgeon Johnson, representing the United States Government; and Hon. Arthur Barclay, representing the Government of Liberia.

Findings of the Commission

THE commission's findings are given in brief below:

(*a*) Although classic slavery as visualized with slave markets and slave dealers is no longer in existence as such in the Republic of Liberia, slavery as described in the 1926 antislavery convention does exist in that Republic, inasmuch as inter and intra tribal domestic slavery exists. "Pawning"[2] is also recognized in the Republic's social economy.

(*b*) The Government discourages domestic slavery to the extent that a slave appealing to the courts for freedom may be released on a writ of habeas corpus or upon direct proceedings against his master or owner. Evidence presented to the commission disclosed that in certain cases domestic slaves have been freed upon proof of ill-treatment.

(*c*) There has been no evidence that the Republic's leading citizens participate in domestic slavery. There is, however, evidence that some Americo-Liberians have taken native pawns and in some cases have taken woman pawns and used them to attract male workers to their land.

(*d*) Forced labor has been used in Liberia mainly for the construction of motor roads, for building military barracks, civil compounds, etc., and for porterage. Such labor has been recruited in a wasteful manner and often its use has been accompanied with systemic intimidation and ill-treatment by officials of the Government, messengers, and soldiers of the frontier force. Labor secured for public purposes by district commissioners and county superintendents has in many cases been taken for private use on the plantations and farms of high officials of the Government and private citizens. None of these workers has been paid, although there may be paid laborers on the plantations. On the other hand, in Maryland (Liberia) some of the workers have been compelled to pay large amounts to the owners of plantations for release from a term of unpaid and unfed labor.

(*e*) A large percentage of the contract laborers shipped from the southern counties of the Republic to Fernando Poo and French Gabun have been recruited under conditions closely akin to slave

[1] United States. Department of State. Report of the International Commission of Inquiry into the Existence of Slavery and Forced Labor in the Republic of Liberia. Washington, 1931.

[2] An old native custom which is substantially an arrangement by which for a money return a human being, ordinarily a child relative, is placed in servitude indefinitely without pay or privilege. A leopard's tooth is given for a free-born pawn and a mat or piece of metal for a slave pawn.

raiding and slave trading and often by the misrepresentation of destination.

(*f*) Under the authorization of high officials of the Government, labor has been impressed for private purposes on private plantations. "There is no evidence that the Firestone Plantations Co. consciously employs any but voluntary labor on its leased rubber plantations." Such a statement could not have been made, however, when recruiting was subject to Government regulations over which the company had slight control. All the laborers of the company are at liberty to terminate their employment when they wish to do so.

(*g*) The vice president and other high officials of the Government of Liberia, also county superintendents and district commissioners, have sanctioned the compulsory recruitment of laborers for the construction of roads, for shipment out of the country and other purposes, with the assistance of the Republic's frontier force. These officials, superintendents, and commissioners have condoned this use of force to compel laborers to work on road construction, to intimidate villagers, to humiliate and degrade chiefs, to imprison the inhabitants, and to convoy gangs of captured natives to the coast and to guard them there up to time of their shipment.

Suggestions and Recommendations

THE following is a summary of the suggestions and recommendations of the commission:

The policy of the open door should be adopted.—In the judgment of the commission, the "closed door" policy which the Government of Liberia seems to have favored for a long period is at the bottom of the major difficulties which beset the country.

> The enviable stage of financial independence at which some of the tropical African dependencies and colonies have arrived has only been reached by strenuous and eventful communal effort on the part of administration and people, and by full recognition of the now obvious fact that tropical Africa can never be developed, its agricultural, mineral, and other sources utilized, nor surplus Government funds be hoped for, without the willing cooperation and assistance of the indigenous population. It is now becoming everywhere recognized by tropical African administrators that the first considerations toward financial competence must include provision for the civilization, education, and the gaining of the confidence of the native, not for his subjugation and exploitation.

Education should be extended to all alike.—Schools are declared by the commission to be of primary importance not only for teaching reading and writing, but for improving the sociological conditions of the natives. The Republic should have specialist instructors to teach the natives market values and the utilization of the raw materials and innumerable economic products of the country. "A policy of suppression and seclusion for fear of competition, i. e., the closed door, can only lead to a condition of delayed development, bankruptcy, and final failure."

The barrier between the civilized and the uncivilized should be broken down.—In Liberia the man who has attended school is considered a "civilized" person, in distinction to the native or peasant without book learning. The "civilized man" in the Republic is encouraged to live at or in the neighborhood of a Government station or in "civilized" quarters assigned him by the Government, so that he

may have less opportunity to help or counsel the chiefs and native peasants or to influence them against the administration. The commission believes that "the sooner class distinction between civilized and uncivilized is broken and the indigenous native allowed an equal status with the coast dweller, the better for all concerned."

Native policy should be radically reconstructed and the Department of the Interior reorganized.—In nearly all other tropical African administrations, the commission states, first consideration has been given to the native hinterland community of tribes. In Liberia, however, such tribes have been grossly exploited and subjugated. Unless a thorough and prompt reorganization of the Interior Department is undertaken, there is bound to be a rude awakening.

> Not only have the native village classes been intimidated and terrorized by a display of force, cruelty, and suppression, but the chiefs themselves, men whom the people not so many years ago looked up to, were glad to serve, and relied upon for protection, harsh though it sometimes was; men who never moved without a retinue and barbaric display of pomp have been so systematically humiliated, degraded, and robbed of their power that now they are mere go-betweens, paid by the Government to coerce and rob the people. The words "development," "social progress" are unknown; servitude and slavedom have taken their place.

The present district commissioners should be removed.—The five district commissioners are reported dishonest, corrupt, and skillful only in devising means to intimidate the natives in order to extort money from them and in creating opportunities for extracting more money. It is suggested that higher-grade officials be made district commissioners or district administrators.

The political division of the country should be rearranged.—The commission also suggests that each of the five districts be incorporated with its corresponding neighboring county, thus eliminating the maritime strip with its implicit separation from the natives of the interior. In this way each county would extend as a Province from the coast to the boundaries of the hinterland. The administration of these counties would be incorporated with that of the senior commissioners who would become provincial commissioners responsible only to the President. "This step would lead to much-needed economy in many directions and tend, as no other arrangements could, to assist the development of the Republic's rich interior by encouraging intercommunication and trade and by helping to bring about a better understanding between the coastal and interior populations."

New commissioners might be either European or American.—It would be advisable to select the senior commissioners and also their assistants from candidates who have successfully passed some kind of civil service examination which might be held either in America or Europe.

The humiliation of chiefs should be discontinued and their tribal authority reestablished.—The very first steps taken by American or European commissioners after their installation should be the reinstatement of the paramount chiefs who have been subjected to such systematic degradation—or at least the most deserving of them—to their former positions of local power and authority over town chiefs and people. The chiefs should be taught principles of progressive town and country administration. Bad customs should be discouraged and good practices fostered.

Pawning and domestic slavery should be made illegal.—So long as domestic slavery and pawning are recognized institutions in Liberia, so long will the stigma of slavery be upon the country. The commission urges that immediate steps be taken to make these two practices illegal as a preliminary to extirpating them.

Shipments of laborers to Fernando Poo should cease.—The commission received reliable information that labor conditions in Fernando Poo had improved. The members, however, agree that under existing circumstances in the hinterland of Liberia, particularly in the absence, as they think, of any form of competent government in that locality and the resultant lack of assurance that the abuse of both official and physical power with reference to recruitment will not occur, the organized shipment of workers to Fernando Poo and other places should immediately be stopped.

Road program should be abridged.—In view of the needlessness of much of the road construction already done and the general protest against further procedure with the work in Maryland (Liberia), the ambitious road scheme of the Department of Public Works should be cut down, if not entirely abandoned, except in Montserrado where it can be more efficiently supervised, until the natives recuperate from the effects of the abuses attending the operation of such scheme and until the Department of the Interior has been to some extent reorganized.

The frontier-force soldiers should be much more strictly controlled and reconsideration given to their duties.—A large part of the ill-treatment of the people of the interior, the discontinuance of native cultivation, the exodus of the inhabitants and the prevailing discontent have, in the judgment of the commission, resulted from the brigandage of the soldiers of the frontier force. These soldiers, according to the reports from the natives, are frequently unaccompanied by their officers and when they are so accompanied the officers apparently encourage a general policy of intimidation. The commission holds that this military force should not on any account employ native compulsory labor for building or other work which in other places is ordinarily done by the soldiers themselves.

American immigration should be encouraged.—Instead of hindering immigration from the United States, the highest types of educated Negroes should be induced or influenced to come to the Republic.

The commission can not too strongly express its conviction that, as regards most officials, mere advance to greater efficiency and honesty will not be sufficient. The tolerance given to gross dishonesty in office, the general ignorance of the interior and its people; the lack of means of education in the Provinces and its total absence in the hinterland, except were a few missionaries are installed; the powerful influence of family connections between the executive officers of the Government, few of whom have ever left the country; and the general insularity of outlook, render futile any hope of improvement in the present conditions without the introduction of outside specialist assistance, the reduction of superfluous offices, and other drastic internal provisions made.

Steps Taken After Presentation of Report

ACCORDING to Industrial and Labor Information of March 16, 1931 (p. 324), the Liberian Government, within a month after the receipt of the report summarized above, announced that it had taken measures

by "decree and proclamation to free all domestic slaves, abolish the 'pawn' system, and prohibit the recruiting of contract labor for foreign employment."

The following acts have been adopted by the Liberian Legislature:[3]

Recruiting of contract labor.—By an act dated December 15, 1930, the recruiting of contract labor for service beyond the frontiers of the Republic is made illegal, except in the case of stevedores and ship laborers on merchant vessels. Breaches of the act are punishable by fines of a maximum sum of $2,000 or one year's imprisonment.

Pawning.—An act dated December 19, 1930, prohibits the taking, holding, or giving in pawn of any person, and prescribes the release of all persons held in pawn. The taking, holding, or giving in pawn of any person is made a felony entailing a maximum of two years' imprisonment and the forfeiture of civil rights.

Other measures.—For the reorganization of the administration of the hinterland, an act dated December 15 authorizes the President to engage as commissioners two persons of American or European nationality and experience of tropical territories. The commissioners are within six months of appointment to submit recommendations on the steps they consider necessary for the welfare of the population, their progress in civilization, and their social and economic betterment. Pending action by the legislature on any such recommendations, the President is authorized to give effect to them, if they are not in conflict with the constitution of the Republic.

Acts of December 18 and 19, respectively, permit unrestricted trade in the hinterland and provide for the creation of a public health and sanitation service.

Toward the close of January, 1931, the Council of the League of Nations considered the report under review and concluded to create a small committee from its own members to aid the Government of Liberia to put into effect the recommendations of the International Commission of Inquiry. At the same time indorsement was given by the council to a suggestion that the Liberian Government's action to carry out such recommendations take the form of the ratification of the forced-labor convention adopted last year by the International Labor Conference. Since this suggestion was made the President and Legislature of Liberia have ratified the convention.[4]

[3] International Labor Office. Industrial and Labor Information, Geneva, Mar. 23, 1931, pp. 367, 368.
[4] Idem, Mar. 16, 1931, p. 324.

INDUSTRIAL ACCIDENTS AND SAFETY

American Standards Safety Codes

AT A RECENT meeting of the standards council of the American Standards Association a statement of basic principles was adopted. This was later approved by the board of directors.

The American Standards Association is a federation of more than 40 national technical societies, trade associations, and governmental bodies. The last group includes the Department of Labor, which designates representatives of labor on the sectional committees for drafting or revising of industrial safety codes and publishes approved codes as Government documents. The principal purpose of the association is to bring together manufacturers, distributors, consumers, technical specialists, and others directly concerned with a particular industrial safety code or other standardization project, so as to prepare a national standard for it. Work in connection with projects is carried on by a technical staff. The final approval of the standards is vested in the standards council, composed of representatives of the member bodies. Up to 1930 a total of 166 "American Standards" had been approved and projects for 171 others were under consideration.

The basic principles, as adopted, follow:

The A. S. A. does not attempt to make decisions of industrial policy through its own administrative agencies (board of directors, standards council, etc.). It provides the machinery (sectional committees, conferences, etc.) through which the industries themselves arrive at such decisions. In every case the facts regarding such decisions, and the procedure followed in reaching them, is made clearly available to all concerned.

It follows as a corollary that the A. S. A. takes up new projects only upon request and only when such a request has sufficient industrial support to warrant the undertaking of the project, the facts, again, being available to all concerned.

The converse corollary follows in precisely the same way, viz, that the A. S. A. itself does on a basis of engineering or economic considerations, not make specific negative decisions, for example, either against initiating a project or for stopping a project already started. In such cases the responsibility before the public lies with the group or groups, through whose actions such decisions are reached.

The functions of the board and the standards council in all such matters are distinctly judicial ones. These functions have to be so scrupulously guarded and the record made so clear and precise that there can be no grounds for suspicion that the judicial processes of the A. S. A. are being diverted to selfish ends by any group or that they are being used as a screen by any party to a controversy. In fact, much of A. S. A. procedure is so clearly of a judicial nature that it has to be carried out with all of the scrupulous care which is exercised in the best of our courts. It is important that the various groups and individuals having to do with the work of the standards council and of the board clearly understand this fact.

Ample machinery in the form of sectional committees, conferences, special committees, etc., are provided for the reconciliation of divergent views on technical matters and for the resolution of technical controversies when they arise. Cooperating bodies and their representatives are under obligation to use this machinery for such questions, instead of attempting in any manner to introduce them into the judicial processes of the A. S. A.

Furthermore, the functions of the A. S. A. are limited to matters having to do with standardization. Hence, it may not be used in efforts to adjust extraneous questions arising between organizations. For example, the procedure provides that matters of representation are to be determined simply upon the principle that "groups having a substantial interest" in a standard "have an inherent right to representation on the body dealing with the subject matter of the standard."

These principles require thoroughgoing responsibility on the part of cooperating bodies and their representatives—responsibility in three senses, viz:

(*a*) Responsibility in representation. (Unfortunately many men do not fully understand the meaning of representation or of the responsibilities which it entails.) It is the duty of a representative (1) to keep sufficiently in touch with his organization so that he can correctly interpret its attitude in the development of the work and can participate in decisions in committees; (2) to keep his organization informed of developments; (3) to act as a leader in the formulation of the policies of his organization in regard to the matters with which he is dealing; and (4) to refer back to his organization questions upon which he feels unauthorized to speak for it.

(*b*) Responsibility in the sense of carrying out with administrative orderliness, competence, and with reasonable promptness, work for which responsibility has been assumed.

(*c*) Responsibility before the world for the consequences of the acts of its authorized committees and representatives, scrupulous care being taken that no effort shall be made to shift this responsibility to the A. S. A.

Fatal Industrial Accidents in Canada, 1929 and 1930

THE following statistics on fatal industrial accidents in Canada in the calendar years 1929 and 1930 are taken from the Canadian Labor Gazette of March, 1931:

FATAL INDUSTRIAL ACCIDENTS IN CANADA, 1929 AND 1930[1]

Industry	Number of fatalities		Industry	Number of fatalities	
	1929[2]	1930		1929[2]	1930
Agriculture	156	121	Electric light and power	40	40
Logging	235	168	Transportation and public utilities	326	316
Fishing and trapping	54	35	Trade	58	54
Mining, nonferrous smelting, and quarrying	234	257	Finance	1	.....
Manufacturing	250	189	Service	114	115
Construction	298	312	Total	1,766	1,607

[1] The fatalities include accidents to fishermen and seamen outside Canadian waters and such accidents are assigned to the Province in which various ships are registered, but exclude accidents to Canadian fishermen and seamen on boats registered in another country.

[2] Revised figures.

WORKMEN'S COMPENSATION

Recent Workmen's Compensation Reports

Minnesota

ACCORDING to the fifth biennial report of the Industrial Commission of Minnesota, covering the 2-year period ending June 30, 1930, industrial accidents are constantly increasing in the State and passed the 50,000 mark during each of these years. A total of 101,853 accidental injuries was reported to the commission for the two years, an increase of 10,179 over the number reported for the preceding biennium.

This is practically in line with other increases experienced during the 10-year period since the commission was created, as shown by Table 1, which presents a comparison, by years, of the number of compensable, noncompensable, total, and fatal accidents reported in that time. The figures for the first eight years are based upon the first reports of accidents, while those for 1929 and 1930 are based upon the latest progressive reports, which often change the status of cases from noncompensable to compensable, and from nonfatal to fatal. This can be seen by the records for the last two years, which gave 312 fatal accidents in the first reports, but as 108 other injured employees subsequently died from the effects of their injuries a total of 422 fatal cases was presented by the latest reports.

TABLE 1.—NUMBER OF INDUSTRIAL ACCIDENTS REPORTED, 1920-21 TO 1929-30

Year ending June 30—	Compensable	Noncompensable	Total	Fatal [1]	Year ending June 30—	Compensable	Noncompensable	Total	Fatal [1]
1921	11,908	22,673	34,581	143	1927	13,613	32,612	46,225	114
1922	10,428	21,143	31,571	197	1928	14,400	31,049	45,449	98
1923	12,469	25,182	37,651	243	1929	17,110	33,104	50,214	213
1924	12,839	25,878	38,717	236	1930	16,019	35,620	51,639	209
1925	13,330	25,948	39,278	157					
1926	14,155	31,163	45,318	150	Total	136,271	284,372	420,643	1,760

[1] Included in compensable accidents.

The report states that the increase in accidents may be partly accounted for by the requirement of the commission that all lost-time accidents be reported, as some employers and insurers formerly reported only the compensable accidents, i. e., those involving disability of more than one week. The main reason for the increase, however, is thought to be that the industrial development of the State, with the consequent installation of more machinery, has increased the hazards of employment. It is also suggested that the business depression may have played a part, through the employment of cheaper help, which presumably displaced older, more experienced, and more careful employees.

The 99,528 compensation cases closed during the two fiscal years and the amounts paid for compensation and medical costs in these cases, distributed according to extent of disability, are shown in Table 2.

TABLE 2.—INDUSTRIAL ACCIDENTS, AND COMPENSATION AND MEDICAL COSTS, JULY 1, 1928, TO JUNE 30, 1930

Extent of disability	Number of accidents			Compensation paid	Medical costs
	1928–29	1929–30	Total		
Compensable cases:					
Fatal	173	143	316	$571,045	$36,190
Permanent total	2	7	9	43,481	6,760
Permanent partial	1,649	1,172	2,821	2,276,304	421,413
Temporary total	15,412	12,087	27,499	2,042,046	1,000,126
Total	17,236	13,409	30,645	4,932,876	1,464,489
Noncompensable cases, involving:					
Time loss of 1 week or less	10,019	9,284	19,303	----------	79,624
Medical expense only	10,343	8,662	19,005	----------	159,818
No time loss or expense	12,742	17,833	30,575	----------	----------
Total	33,104	35,779	68,883	----------	239,442
Contract medical (estimated)	----------	----------	----------	----------	525,000
Grand total	50,340	49,188	99,528	4,932,876	2,228,931

West Virginia

THE report of the West Virginia compensation commissioner for the 4-year period ending June 30, 1930, shows assets for the State compensation fund of $18,982,345.52 on June 30, 1930, and liabilities of $18,607,864.42, leaving a surplus of $374,481.10. The liabilities include a reserve of $17,577,589.02 for determined and estimated outstanding claims.

During the year ending June 30, 1930, employers paying premiums reported 219,961 employees, and self-insuring employers reported 18,005, making a total of 237,966 employees having the benefit of the act.

NUMBER OF ACCIDENTS REPORTED AND BENEFITS PAID IN WEST VIRGINIA, FISCAL YEARS 1914 TO 1930

Year ending June 30—	Number of accidents reported by—				Total number of accidents	Amount of benefits paid
	Employers paying premiums		Self-insurers			
	Fatal	Nonfatal	Fatal	Nonfatal		
1914	520	10,898	----------	----------	11,418	$132,452.81
1915	551	14,963	----------	----------	15,514	479,526.60
1916	489	19,132	13	467	20,101	666,126.47
1917	486	22,146	19	740	23,391	893,912.54
1918	525	23,032	16	806	24,379	1,023,812.96
1919	487	18,153	19	718	19,377	1,160,875.29
1920	427	23,993	17	874	25,311	1,410,974.37
1921	471	22,717	11	751	23,950	1,620,988.15
1922	434	21,371	9	554	22,368	1,944,122.96
1923	490	27,726	11	543	28,770	2,155,046.88
1924	713	29,701	16	964	31,394	2,841,143.65
1925	564	29,956	22	1,089	31,631	3,345,075.20
1926	730	34,981	29	1,499	37,239	3,947,115.55
1927	800	39,352	28	1,593	41,773	4,608,900.76
1928	591	37,280	26	2,363	40,260	4,838,697.71
1929	600	37,611	22	2,964	41,197	4,754,578.35
1930	605	38,333	40	2,927	41,905	4,722,203.16
Total	9,483	451,345	298	18,852	479,978	40,545,553.41

The State workmen's compensation fund has been in operation since October 1, 1913, and during that time a total of 479,978 accidents has been reported. A distribution of these accidents, by years and by employer group, together with yearly distribution of amount of benefits paid on claims, is shown in the table preceding, compiled from tabulations in the report.

The benefits listed include medical and funeral benefits, as well as compensation payments. An additional liability, estimated as of June 30, 1930, at $17,577,589.02, brings the total cost of claims for the 17-year period to $58,123,142.42. It is stated that the administrative expense for the entire period averages only 4 per cent of the earned premiums.

Accidents and Compensation Payments in English Industry in 1929

THE Home Office of Great Britain has recently issued a report dealing with statistics of accidents and compensation proceedings for 1929, under the workmen's compensation and the employers' liability acts, which shows that in the seven great industrial groups covered—shipping, factories, railways, docks, mines, quarries, and construction work—a total of £6,569,918 ($31,972,506) was paid out in compensation during the year. The following table gives for each year from 1920 to 1929, inclusive, the average number of workers employed throughout the year in the seven groups, with the total number of compensated cases, and the division of these between fatal and nonfatal cases.

NUMBER OF EMPLOYEES AND OF COMPENSATION CASES (FATAL AND NONFATAL) IN SEVEN INDUSTRY GROUPS

Year	Number of employees	Fatal cases	Nonfatal cases	Total cases
1920	8,348,150	3,531	381,986	385,517
1921	7,315,866	2,385	283,361	285,746
1922	7,205,609	2,489	390,423	392,912
1923	7,342,311	2,657	477,378	480,035
1924	7,512,359	2,878	487,442	490,320
1925	7,541,014	3,030	473,055	476,085
1926	7,001,795	2,345	368,563	370,908
1927	7,403,222	2,567	455,852	458,419
1928	7,433,660	2,735	461,485	464,220
1929	7,450,112	2,819	478,602	481,421

This shows that while in 1929 the average number of workers, as compared with 1920, had decreased by almost 900,000, and the number of fatal cases by one-fifth, the number of nonfatal cases had increased by one-fourth. The amount paid in compensation rose during the decade from £5,978,009 ($29,091,981) to £6,569,918 ($31,972,506).

In 1929 the average amount in cases of death was £287 [$1,396.69]; in cases of disablement the average amount (including cases settled by payment of a lump sum) was £12 1s. [$58.64]. The average amount paid in lump sums was £88 11s. [$430.93], while the average amount paid in weekly payments (including weekly payments made prior to settlement by a lump sum) was £8 9s. [$41.12].

The proportion of compensation paid in the seven industries in fatal cases was 12.3 per cent of the total amount paid for compensation. The percentages for the different industries were as follows: Shipping, 29.4; factories, 10.0; docks, 11.5; mines, 11.0; quarries, 17.0; constructional work, 15.1; and railways, 27.2.

The number of employees, the number of compensation cases, and the amount paid in compensation are shown for each of the seven industrial groups in the following table:

NUMBER OF EMPLOYEES AND NUMBER AND COST OF COMPENSATION CASES IN 1929, BY INDUSTRY GROUPS

Industry group	Number of employees	Number of compensation cases	Amount of compensation paid	
			English currency	United States currency
Shipping	206,763	8,645	£267,293	$1,300,781
Factories	5,531,322	210,009	2,407,346	11,715,349
Docks	108,444	12,991	288,771	1,405,304
Mines	930,780	214,141	3,049,826	14,841,978
Quarries	79,430	7,000	100,149	487,375
Construction work	111,917	8,369	160,946	783,244
Railways	481,456	20,266	295,587	1,438,474
Total	7,450,112	481,421	6,569,918	31,972,506

These figures represent only the actual amount paid to the injured workers or their dependents, and do not represent the total charge on the industries. To compute the latter, it would be necessary to take account of administrative expenses, the medical and legal costs of the employers, insurance companies, and mutual indemnity associations, with the amounts placed in reserve and the profits earned by the insurance companies. If all these items were taken into account, it is estimated that "the total amount paid in the seven great industries in 1929 in respect of workmen's compensation can not have fallen far short of £8,500,000 [$41,365,250]."

The following table shows for the five years ending with 1929 the percentage of nonfatal terminated cases which had lasted for specified periods:

DURATION OF COMPENSATION IN CASES OF ACCIDENT AND DISEASE

Year	Per cent of terminated cases which lasted—							
	Under 4 weeks		4 and under 13 weeks		13 and under 26 weeks		26 weeks and over	
	Accident	Disease	Accident	Disease	Accident	Disease	Accident	Disease
1925	63.83	38.92	30.99	34.78	3.50	7.40	1.68	18.90
1926	60.86	32.62	32.12	32.71	4.41	9.45	2.61	25.22
1927	64.59	47.02	30.29	31.56	3.23	4.88	1.89	16.54
1928	63.71	43.90	30.69	34.01	3.71	7.02	1.89	15.07
1929	64.87	47.61	30.01	34.89	3.44	5.43	1.68	12.07

The proportion of accident cases in which compensation was continued for more than 13 weeks is uniformly small, not once during the five years reaching 8 per cent. Among the cases of disease, a far larger proportion is found in the long-duration columns.

In regard to cases of industrial disease, the report shows that compensation was paid in 50 fatal cases to the amount of £11,520 ($56,-

062), and in 18,611 disablement cases to the amount of £562,203 ($2,735,961). The 50 fatal cases included 19 of lead poisoning, 6 of anthrax, and 18 of epitheliomatous cancer and scrotal epithelioma.

As in previous years, the bulk of the cases occurred in the mining industry. The bulk of the cases were due to miner's nystagmus, beat hand, and beat knee. Cases of miner's nystagmus accounted for over 52 per cent of the total number of cases; and cases of this disease together with beat hand, beat knee, beat elbow and inflammation of the synovial lining of the wrist joint and tendon sheaths numbered 16,327, or 87.5 per cent, of the total number. Of the remainder, 1,665, or 8.9 per cent, were cases of dermatitis produced by dust or liquids; 280, or 1.5 per cent, were cases of lead poisoning; and 274, or 1.5 per cent, were cases of skin or other ulceration or cancer. The remaining 115 cases, or 0.6 per cent, included 49 cases of various forms of industrial poisoning and 38 cases of anthrax.

LABOR LAWS AND COURT DECISIONS

Additional Compensation Held No Bar to Action Against Physician for Malpractice

IN CALIFORNIA an allowance of additional compensation under the California workmen's compensation act in consequence of permanent injuries is no bar to an action against the hospital and physicians for malpractice, according to a recent decision of the California District Court of Appeal for the Second District. (Smith *v.* Golden State Hospital et al., 296 Pac. 127.)

According to the facts of the case, Lawrence W. Smith received personal injuries resulting in disability during the course of his employment. He instituted the proper proceedings under the California workmen's compensation act and was allowed compensation and medical treatment. Thereafter he filed an action against his employers and the hospital and physicians to whom he had been referred for medical treatment by the employers, praying damages for alleged permanent injuries subsequently incurred as a result of malpractice. Pending trial of this action, the industrial commission allowed additional compensation in consequence of the permanent injuries. The Superior Court of Los Angeles County dismissed the suit and Smith appealed to the district court of appeal. On appeal Smith named only the hospital and physicians as parties defendant and the sole question for determination was the right of the employee to maintain an action against the hospital and physicians for malpractice, after allowance of compensatory relief from the employers.

In deciding this question the court cited section 21, article 20, of the California Constitution, which authorized power to create and enforce a workmen's compensation system covering injuries received by workmen "while in the course of their employment." The court then pointed out that this section measured and limited the power of the legislature in delegating authority to the industrial accident board. The board had jurisdiction over only those cases between employer and employee where the injury was incurred "in the course of the employment"; and the rights of the employee against an independent third party, where the injury did not occur within the course of the employment, were not affected by the compensation act. In rendering the opinion Judge Craig said:

> That independent professions by the fact of business contact with the employer should be absolved of responsibility for mistake, avoidable or unjustified neglect resulting in secondary affliction, seems obnoxious to the purpose and spirit of such a statute. To so hold might induce industry to encourage quackery, and place a premium upon negligence, inefficiency, and wanton disregard of the professional obligations of medical departments of industry, toward the artisan. Such is the view entertained by courts of last resort in other jurisdictions where the subject has required specific attention.

The court quoted from the case of Ruth *v.* Witherspoon-Englar Co. (98 Kans. 179, 157 Pac. 403), in part as follows:

> A part of the loss occasioned by an accidental injury to a workman is cast upon the employer, not as reparation for wrongdoing, but on the theory that it should

be treated as a part of the ordinary expense of operation. So much of an employee's incapacity as is the direct result of unskillful medical treatment does not arise "out of and in the course of his employment" within the meaning of that phrase as used in the statute. (Laws 1911, ch. 218, sec. 1.) For that part of his injury his remedy is against the persons answerable therefor under the general law of negligence, whether or not his employer be of the number.

The decision of the lower court was therefore reversed.

Employee Temporarily Absent from Business not Covered by Compensation Act

THE first appeal case arising under the District of Columbia workmen's compensation law (act of May 17, 1928, 45 Stat. 600) was recently decided by the Court of Appeals of the District of Columbia. (New Amsterdam Casualty Co. *v.* Hoage, Deputy United States Employees' Compensation Commissioner for the District of Columbia, 46 Fed. (2d) 837). The Court of Appeals of the District of Columbia by its action reversed a decree of the supreme court of the same jurisdiction, which dismissed a petition of the insurance carrier enjoining the enforcement of an award made by the deputy commissioner of workmen's compensation in the District of Columbia, to the widow of a deceased employee.

The facts out of which this case arose are that on August 14, 1928, James N. Bradley was employed by the Royal Glue Co., a corporation engaged in business in the city of Washington, D. C. Bradley had been in the employ of the company for a period of about 40 years, and on the morning of August 14 he reported for duty at the usual hour, and shortly thereafter informed his immediate superior "I am going up the street on a little business and will be right back." He accordingly left the premises of the company and went directly to a bank located in the financial district of the city, for the purpose of cashing a personal check. As he was crossing an intersection he was struck by a street car and killed. From the circumstances it appeared that Bradley was on his way to transact another private errand when he was killed, although, on the other hand, there was some indication that he might have been en route to one of several stores in which the company occasionally made purchases. An official of the company testified that it was customary for Bradley to ask permission when he left the plant on private business. No such request was made on the day of the accident. Bradley's immediate superior also stated that he had no knowledge of the employee's errand. No evidence was produced of any necessary purchases for the company.

The deputy commissioner of compensation for the District of Columbia, however, found that the deceased employee—

> While in the service of his employer, in the capacity of a mixer of glue at the employer's plant, "was temporarily away from the plant and in the course of employment, and while so engaged was walking across Fourteenth Street on the north side of New York Avenue northwest, and was there struck by a street car of the Washington Railway & Electric Co., sustaining an injury which resulted in his death."

In an appeal by the insurance carrier the Supreme Court of the District of Columbia dismissed the case, and the insurance carrier thereupon appealed to the Court of Appeals of the District of Colum-

bia. The court of appeals referred to several sections of the employees' compensation act as applicable in the District of Columbia, and especially to the provision relative to the procedure in the event a compensation order was not in accordance with the law.

The main question then for determination by the court of appeals was whether the award was "in accordance with law." The court said that a presumption usually arises upon proof of injury and the existence of the employer and employee relationship, and a claim for compensation therefore "comes within the provisions of this act." If, however, contrary substantial evidence is introduced and no other counteracting evidence is presented by the claimant, the presumption is therefore rebutted.

In the view of the court of appeals "there was substantial evidence in this case that Bradley at the time of his injury was not performing services 'arising out of and in the course of' his employment, and that there is no substantial evidence to the contrary."

The court, continuing, said that it would be indulging in pure conjecture, inconsistent with the established facts "to infer that, when he sought permission to go up the street on a little business, he meant that he was going out to make an emergency purchase for the company, that he cashed the check for the purpose of obtaining money to pay for that purchase, and, when killed, was on his way to make the purchase."

An award, therefore, the court concluded "based upon conjecture inconsistent with established facts and circumstances is manifestly so arbitrary and unreasonable as to be 'not in accordance with law.'"

The decree of the Supreme Court of the District of Columbia was therefore reversed.

Oregon Law Forbidding Discriminatory Employment Contracts

ON MARCH 6, 1931, a law (Acts of 1931, ch. 247) was approved by the Governor of the State of Oregon, declaring contrary to public policy and void all contracts of employment whereby either party agrees not to join any labor organization or employer's organization, or to withdraw from the employment in the event that he does become a member of any such organization.

The provisions of the Oregon law are as follows:

> Every undertaking or promise hereafter made, whether written or oral, express or implied, constituting or contained in any contract or agreement of hiring or employment between any individual, firm, company, association or corporation, and any employee or prospective employee of the same whereby (a) either party to such contract or agreement undertakes or promises not to join, become, or remain a member of any labor organization or of any employer organization; or (b) either party to such contract or agreement undertakes or promises that he will withdraw from an employment relation in the event that he joins, becomes or remains a member of any labor organization or of any employer organization, hereby is declared to be contrary to public policy and wholly void and shall not afford any basis for the granting of legal or equitable relief by any court.

Enforcement of Chinese Factory Law

ANNOUNCEMENT was made by the Chinese Government that it intended to enforce the factory act of 1929[1] from February 1, 1931, in Chinese territory and also to apply such legislation to foreign factories in the concession districts.

This law prohibits labor by children under 14 years of age and woman and child labor in dangerous or improper employment or during specified hours at night or in the early morning. The legislation also establishes an 8-hour day for adults and provides for rest periods and holidays, minimum wages based upon local standards of living, equal pay for men and women for equal work, regulations regarding the termination of contracts, including leave of absence to workers to seek new employment, a dismissal wage, and health and safety measures. Under the act employers must furnish educational facilities for child workers, apprentices, and other employees, and should promote, so far as possible, proper amusements for their labor forces and aid them to save money and to belong to cooperative societies. Provision is made, too, for profit sharing. Pending the enforcement of social insurance laws for workers disabled by accident or disease or who die in the performance of their duty, the factory must meet the medical expenses of such workers and pay pensions to them or their survivors. One of the chapters of the law deals with the selection, functions, and operation of factory councils, upon which employers and workers shall have an equal number of representatives. Another chapter is devoted to the subject of apprenticeship. Violations of the act are punishable by fines ranging from $100 to $500.

Both native and foreign factory owners vigorously opposed the Government's plan to put the law into operation on the date announced, according to reports from Nankin. As a result of these protests and because of the difficulties involved in the immediate enforcement of the legislation, the Government decided to postpone putting the act into operation until August 1, 1931.[2]

In order to create an adequate inspectorate to enforce the factory act, the Legislative Council of the National Government of the Republic of China adopted January 31, 1931, a law governing factory inspection, which is translated as follows in the Chinese Economic Bulletin, Shanghai, February 21, 1931:

ARTICLE 1. The word "factory" or "factories" referred to in the present law shall be defined in accordance with the provisions of article 1 of the factory law.

ART. 2. The term "controlling official organ," referred to in the present law, unless otherwise stated, shall apply to the municipal government in municipalities and to the Hsien government in Hsien districts.

ART. 3. Inspection of factories shall be carried out by inspectors appointed by the central labor administrative organ.

ART. 4. The matters subject to inspection shall be: (1) Those which concern the age of male and female workers and the nature of their work, as provided under Chapter II of the factory law and other labor enactments, (2) those which concern working hours, as provided under Chapter III of the factory law and other labor enactments, (3) those which concern the hours of rest and holidays of workers, as provided under Chapter IV of the factory law and other labor enactments, (4) those which concern leave granted to female workers before and after childbirth, as provided under Chapter VII of the factory law and other labor enactments, (5) those which concern the safety and sanitary provisions, as provided under Chapter

[1] For translation of text, see Labor Review, Washington, June, 1930, pp. 106–113.

[2] International Labor Office. Industrial and Labor Information, Geneva, Mar. 16, 1931, p. 327.

VIII of the factory law and other labor enactments, (6) those which concern accidents and fatalities in factories and the death and injury of workers, (7) those which concern the age, number, and treatment of apprentices, as provided under Chapter XI of the factory law and other labor enactments, (8) those which concern the book of records and registration of workers, as provided under the factory law and the law governing the application of the factory law, and (9) all other matters which by law are liable to inspection.

ART. 5. Factory inspectors shall be appointed from the following classes of candidates, who, having been trained, are found to be fully qualified: (1) Those who have graduated from technical schools at home and abroad or institutions of higher grade, and (2) those who have worked in factories for over ten years and possess the adequate knowledge and skill required.

ART. 6. Factory inspectors, in accordance with the instructions of the central labor administrative organ, visit all factories and their branch or extension workshops in certain specified areas to make periodic or irregular inspections.

ART. 7. When discharging his official duty, a factory inspector shall carry with him a certificate establishing his identity and authority.

ART. 8. Inspection of Government-owned factories shall be carried out by the inspector jointly with the Government offices which control the factories.

ART. 9. Factory inspectors shall have authority to question employees and labor union officers and request them to make responsible answers and shall also be authorized to examine all books, records, and other documentary evidence pertaining to such affairs, as provided under article 4 of the present law.

ART. 10. When necessary a factory inspector may request the assistance of the local administrative or police officials in the execution of his duty.

ART. 11. Every three months a factory inspector shall submit a report to the "controlling official organ," setting forth the following particulars relating to the district under his inspection: (1) Statistics concerning the number and character of the factories, (2) statistics concerning the number and occupation of workers, (3) conditions of child labor, (4) fluctuations of employment and unemployment, (5) statistics concerning factory accidents, (6) actual working hours observed in the different factories, (7) statistics concerning sickness among the injuries to workers, (8) safety provisions observed in various factories, (9) hours of rest and holidays allowed to workers in different factories, and (10) sanitary conditions existing in the factories.

ART. 12. When a factory is found to be in the condition described under article 44 of the factory law, the factory inspector shall report without delay the matter to the "controlling official organ" for action.

ART. 13. If the safety or sanitary conditions of a factory call for immediate improvement or alteration, the factory inspector shall issue instructions for such work to be done. If the factory workers' union concerned fails to obey such instructions, the inspector shall immediately report the matter to the "controlling official organ" for action.

ART. 14. Factory inspectors are forbidden: (1) To receive or extort bribes, (2) to make false or garbled reports, (3) to disclose secrets of industrial processes, (4) to estrange the good feelings existing between the factory management and the workers, (5) to accede without proper authority to any demand by the factory management or the workers, and (6) to hold concurrently any other public office or engage in trade or business.

ART. 15. If the factory inspector commits any act in contravention of the law or is negligent in his duty, the factory management or the workers may report the matter to the "controlling official organ."

ART. 16. For the purpose of improving safety or sanitary conditions, a factory inspector may submit his suggestions both to the factory management and the workers, between whom he should devise means for securing cooperation in order to improve the safety or sanitary conditions of the factory.

ART. 17. If a factory inspector commits any of the offenses mentioned in article 14 of the present law, he shall be suitably punished, and if the offense be a criminal one he shall be prosecuted in court.

ART. 18. The management of a factory shall be liable to a fine not exceeding $200 for refusing without satisfactory reason to allow an inspector admission to the factory.

ART. 19. Factory employees or officers of the workers' union shall be liable to a fine not exceeding $100 for refusal without good reason to answer an inspector or for resisting his examination of the books or documents mentioned under article 9 of the present law.

ART. 20. The date fof enforcement of the present law shall be fixed by a separate order.

WORKERS' EDUCATION AND TRAINING

Purposes of Different Types of Vocational Schools

IN A pamphlet recently issued by the Federal Board for Vocational Education [1] the objectives of the several types of vocational schools are set forth. The following data are taken from this publication.

Evening schools or classes.—Instruction in such schools and classes must supplement the students' daily employment. Enrollment is limited to those 16 years of age or over employed in the occupation or trade for which training is given.

The purpose of these schools is to instruct those already employed to become more proficient in the work on which they are engaged and to prepare them for promotion. Many apprentices and journeymen attend evening classes offering technical instruction which is not practicable for them to get on their jobs.

Part-time trade-extension schools or classes.—Such schools or classes give instruction of less than college grade to persons over 14 years of age who already have employment in a trade or industrial occupation. In accordance with the Federal vocational education act, courses on this basis must be planned to give not less than 144 hours per annum during the working hours of the enrolled students.

Their purpose is to instruct and train in order to supplement the employed learners' job experience. For example, groups of apprentices may attend these classes 4 hours per week to receive instruction relative to their trades. In certain cities apprentices in various crafts attend Saturday morning classes.

Cooperative part-time schools or classes.—These undertakings operate on a scheme of half time in school and half time in industrial employment—for example, two groups of boys who alternate between their employment and school are assigned to jobs in pairs as apprentices or learners on a week-about basis or on any other time basis most conveniently adapted to local conditions. Enrollment in this type of school or class is limited to those who have reached the legalized employment age. In certain States boys under 18 years of age can not be employed on industrial jobs which are hazardous.

The purpose of these schools is to train boys for a trade. Such education should not displace any industrial workers, as the pupils should be regarded as apprentices to be assigned only to existing vacancies. While two boys receive half-time training on each job, it actually takes double the time to train each boy. Consequently, the rates of apprentices to journeymen is not changed. In some cities the apprentice has the opportunity to graduate from a high-school course and at the same time secure advance standing on his apprenticeship. Under this scheme such a student is ordinarily in high-school 5 years.

[1] United States. Federal Board for Vocational Education. Labor's responsibility in cooperation with employers and the public schools. Washington, 1930.

Under the cooperative part-time plan the boy receives a much more thorough training than if he spent all his time in a school shop on exercise, or pseudo jobs. Moreover, the training given him in class is better than that available in certain kinds of industrial employment where there is no organized instruction for learners. Where cooperative part-time classes are well organized and advisory committees are utilized, trades are analyzed in order to determine the instructional content. Agreements are made with the public schools, employers, and students, the apprentice training committee of the craft being also an active party to such agreement.

A coordinator is employed by the schools in order to see to it that the students receive adequate and properly organized instruction in every step of their progression through each class of work in the trade and in school. The danger of exploitation of the learners is reduced to a minimum through this arrangement. Apprentices are moved from one class of work to another as was intended under the old apprenticeship system. The cooperative plan enrolls the number of apprentices actually needed into two groups, each attending school half time. Consequently, it does not develop twice the number of apprentices which the trade can absorb as has been feared by some individuals.

Day trade schools.—These institutions provide that students spend 50 per cent of their time each school day in the school shop, and 25 to 35 per cent of their time on allied technical subjects. General studies take up the remainder of the day. Only qualified students 14 years of age and over are enrolled in these schools. An entrance requirement to some of these local schools is graduation from a grade school; in others, one or two years of high-school work.

The purpose of these schools is to give practical training to enable boys and girls to enter remunerative industrial occupations with some advanced standing as learners. It was thought at first that these schools would make apprenticeship in the skilled trades unnecessary. "Due to a great variety of reasons, very few schools nowadays make any claim to being able to turn out full-fledged journeyman workers. A sensible objective for the preemployment type of trade school is to train pupils for advantageous entrance into industry at definite levels of employment; for example, as an apprentice with 3 to 6 months of advanced standing or as a second-year apprentice."

Continuation schools.—In these schools instruction is given to boys and girls between 14 and 18 years of age who are employed. Classes are held during working hours—between 8 a. m. and 5 p. m.—for at least 144 hours per annum. In 28 States laws provide for the establishment of such schools by local communities.

Their purpose is employment adjustment and educational and vocational guidance. Some of these schools provide for the economic and social adjustment of youthful workers, individual guidance from juvenile employment to adult jobs, interpretation of work experience, specific types of job training, and the coordination of instruction with employment conditions.

Restrictions on training.—As noted above, the Federal vocational education act restricts enrollment in part-time trade-extension schools to those who are already employed. Students in cooperative part-time classes must be employed in the trade in which they receive instruction. Moreover, local communities are strongly advised by the Federal Board for Vocational Education not to train more new workers than can be absorbed by a trade. The board holds that a

day-trade course should not be established unless there are employment opportunities in that trade. The number of apprentices required in any one trade in any community should be decided by local schools in cooperation with local organizations of employers and craftsmen.

Cooperation of local organizations with public school officials.—Every local vocational education director should have a general advisory committee made up of representatives of organized groups, including prominent craftsmen, employers, and business men. A committee on apprenticeship training should also be organized with representatives from each craft to advise with the local director as to trade requirements, the subject matter of courses, and the selection of future apprentices.

Meeting place for classes.—Classes may be held on the job, in factories or plants where equipment and machinery are available for instruction, in fact, at any convenient place, but Federal funds can not be used unless the classes are under public supervision and control.

Training and Placement of the Deaf in Minnesota, 1929–1930

THERE is on file in the division for the deaf, Minnesota Industrial Commission, the names and addresses of 1,846 persons residing in the State who are either wholly deaf or hard of hearing. Among them are 390 school children. On the basis of conservative estimates that there is one wholly deaf person for every 1,500 with normal hearing, the deaf population of Minnesota is reported to be over 1,700. The information here presented is taken from the Fifth Biennial Report of the Industrial Commission of Minnesota, 1929–30.[1]

Activities of the Division for the Deaf

THE principal function of the division is to place deaf workers, but the industrial depression has made such placement more difficult than heretofore. Numbers of the deaf who were laid off as a result of the business slump are hoping to get back to their former employment when conditions improve. During the past biennium 203 deaf persons applied for jobs. Positions were found for only 99 applicants. In addition, contracts were made with 6 hotels and apartment houses for the collection of shoes for repair by a deaf man who has a shop of his own.

Personal calls on deaf persons and correspondence to ascertain their condition in life have also taken up much of the time of the superintendent of this division. During the past biennium the superintendent made 1,234 business calls and 335 calls in welfare work. In addition to this, 511 deaf persons called at this office for advice and assistance. During the same period 1,686 questionnaires were mailed from this office to deaf persons and employers throughout the State. On several occasions the superintendent has addressed parent-teachers' organizations and mothers' clubs on the work of the division. The superintendent is also frequently called upon to serve as interpreter for deaf persons. These instances included, during the past biennium, several funerals and three court cases. * * *

The publicity given to the work being done by the division of reeducation of the State department of education and the associations dealing with crippled war veterans, together with the aid accorded to organizations for the blind or crippled by various clubs and lodges, has stimulated public interest in all physi-

[1] For a previous article on this subject, see Labor Review, April, 1927.

cally handicapped persons, including the deaf. While this increased interest has added to the work of this division in some respects, the more favorable sentiment engendered toward the handicapped has in some instances rendered the procurement of employment and assistance for the deaf less difficult, considering the present business depression.

The Deaf in Industry

THE following list, taken from the report, shows the various kinds of work in which the deaf in Minnesota have been successful in performing:

Men

Architectural drawing.	Clerical work.	Military instructors.
Architecture.	Dish washers.	Ministers.
Artists.	Dry cleaners.	Painting, paperhanging.
Athletic directors.	Electrical work.	Printers.
Bakeries.	Etchers.	Printing-press feeders.
Barbering.	Farming.	Photography.
Baseball players.	Glove factories.	Real estate.
Bedding factories.	Janitors.	Road construction.
Bookkeepers.	Linotype operators.	Sign painters.
Bricklayers.	Machinists.	Tailors.
Cigar makers.	Mechanical drawing.	Tile setting.

Women

Alteration departments.	Film inspectors.	Pillow, mattress tying.
Art work.	Furriers.	Power-machine operators.
Beauty culture.	Governess, deaf children.	Sewing.
Billing.	Hat makers.	Shirt makers.
Bookbinders.	Housework.	Supervisors and matrons.
Bookkeeping.	Knitting factories.	Teachers.
Candy dippers, packers.	Labeling and packing.	Typing.
Chambermaids.	Laundry workers.	Weaving.
Cooking.	Library workers.	Wrapping in bakeries.
Dressmaking.	Mimeograph operators.	

Employers' Attitude Toward Deaf Workers

SATISFACTION with their deaf workers has been expressed by the majority of employers interviewed who have such workers. In the course of these interviews it was ascertained that the greater number of the deaf used writing and natural signs for communication with the superiors concerning the carrying out of work, and from time to time a few spoken words. In general, employers said they preferred deaf employees who could speak some and read lips. These employers acknowledged, however, that they could utilize advantageously workers who must communicate in writing.

Few Deaf Workers Injured in Industrial Accidents

IN THE biennium under review only one deaf person was reported to the division as having been injured by an industrial accident, and in this case the injury was not due to any fault of the worker; he was paid full compensation. The division states that it has no means of finding out whether or not other deaf persons were injured during these two years. Some may have suffered slight injuries, but it is pointed out that if there had been other severe accidents which entitled the injured to compensation, reports would have been made to the division.

In the biennium 1929-1930, only 3 cases of discrimination against the deaf in the payment of wages were reported to the division. Satisfactory adjustment was made in all of these cases.

Education and Training of the Deaf

THE enrollment of deaf pupils during the past year was distributed as follows in the five schools of Minnesota in which instruction is available for such pupils:

State school at Faribault	262
Minneapolis day school	93
Rochester day school	40
St. Paul day school	27
Duluth day school	8

The institution for the deaf at Faribault is a boarding school and uses the so-called "combined system" of instruction, which includes all known methods for instructing the deaf, such as writing, signs, finger spelling, lip reading, and speech. The students are reported as having little difficulty in securing employment after graduation. The religious instruction, systematic home life, pleasant surroundings, and association with friends of their own kind at the State school have been important factors in developing to a high degree the moral character of those receiving training there.

The facilities of the day schools are not sufficient to train the pupils thoroughly in occupations. It is therefore necessary to give many of these young deaf persons additional training through the division of reeducation or some other agency. Such additional training, however, is easily obtained.

At the time the report under review was prepared, the establishment of evening classes for the deaf at the Dunwoody Institute in Minneapolis was being planned to enable deaf persons already employed to become more expert in their jobs or to learn some other occupation or trade.

A list of the trades and occupations at present taught in the schools for the deaf is given below:

Architectural drawing.
Art work and lettering.
Baking.
Beauty culture.
Cabinetmaking.
Carpenter work.
Farming.
General repairing.
Housework.
Laundry work.
Linotyping.
Printing.
Sewing.
Shoe repairing.
Tailoring.
Wood carving.

Causes of Deafness and Ages at Which Hearing Was Lost

AN ANALYSIS of the causes of deafness of 385 persons showed that among the most frequent causes were scarlet fever, meningitis, brain fever, measles, and catarrh, which together were responsible for over 52 per cent of all cases, while scarlet fever alone caused 22 per cent.

The table following gives the distribution of 379 deaf persons, by sex and the ages at which they lost their hearing. No hard-of-hearing persons are included in these figures.

AGE AT WHICH HEARING WAS LOST

Age group	Males	Females	Total	Age group	Males	Females	Total
5 to 10	3	2	5	51 to 55	11	9	20
11 to 15	10	12	22	56 to 60	13	8	21
16 to 20	15	20	35	61 to 65	12	6	18
21 to 25	22	22	44	66 to 70	6	4	10
26 to 30	20	15	35	71 to 75	4	1	5
31 to 35	33	22	55	Over 75	1	1	2
36 to 40	17	12	29	Born deaf	6	5	11
41 to 45	18	11	29				
46 to 50	20	18	38	Total	211	168	379

Oregon Apprenticeship Law

ON FEBRUARY 28, 1931, the Governor of Oregon approved an act (Acts of 1931, ch. 101) relating to the training of apprentices. Laws regulating industrial apprenticeship are obviously labor laws, but the importance of such legislation has diminished in recent years due to the advent of machines. Some of the States have never enacted laws on the subject, while others have either specifically repealed existing provisions (Michigan, New Mexico, and Utah) or have entirely omitted the subject in subsequent statutes. Under the apprenticeship system the master is under an obligation to teach the apprentice a trade. This differs from the indentured-service system under which there is no such obligation on the part of the master.

Apprenticeship laws in general contain the names of the parties, the period of indenture, the trade to be taught, employment conditions, and the percentage of mechanic's wages to be received by the apprentice. The Oregon law is in many respects similar to the law enacted in Wisconsin (Wis. Stats., sec. 106.01). In view of the fact that there has been no recent constructive legislation by any of the State legislatures on this subject, it is deemed of sufficient importance to reproduce the Oregon law in full:

SECTION 1. *Apprentice defined.*—The term "apprentice" shall be any minor, 16 years of age or over, who shall enter into a contract of employment of more than two months' duration whereby he is to receive from or through his employer, in consideration for his services in whole or in part, instruction in any trade, craft, occupation, or business, and whereby the learning of any trade, craft, occupation, or business is an essential part of the condition thereof and of the benefit to be derived therefrom.

SEC. 2. *Indenture defined.*—Every contract or agreement entered into by an apprentice with his employer shall be known as an indenture; such indenture shall be in writing and shall be executed in triplicate, one copy of which shall be delivered to the apprentice, one to be retained by the employer, and one to be filed with the State Apprenticeship Commission of Oregon.

SEC. 3. *Who may be indentured.*—Any minor, 16 years of age or over, may, by the execution of such an indenture, bind himself, as herein provided, for a term of service not less than two months.

SEC. 4. *Who must sign the indenture.*—Every indenture shall be signed:

1. By the minor.
2. By the father; and if the father be dead or legally incapable of giving consent or has abandoned his family, then
3. By the mother; and if both the father and mother are legally incapable of giving consent, then
4. By the guardian of the apprentice, if any.
5. By the employer.

SEC. 5. *Who must approve the indenture.*—Every indenture shall be approved:

1. By the State apprenticeship commission or a duly authorized deputy thereof.

2. By the local apprenticeship commission and/or the apprenticeship subcommission of the trade, craft, occupation, or business, if any such exist, covered by said indenture.

3. If there be no parent or guardian with authority to sign, the said contract must be approved by the judge of the juvenile court or the judge of the court of domestic relations in the county in which such minor resides, if any such court exists.

SEC. 6. *Contents of indenture.*—Every indenture shall contain:

1. The name of the parties.

2. The date of the birth of the minor.

3. A statement of the trade, craft, occupation, or business which the minor is to be taught, and the time at which the apprenticeship under the indenture shall begin and end.

4. A statement setting forth all training and employment conditions pertaining to the learning of the trade, craft, occupation, or business by the apprentice.

5. A statement setting forth a schedule of processes to be worked; a schedule showing the per cent of mechanic's wage to be received by the apprentice in accordance with the per cent of mechanicship attained and the employment status of the apprentice.

6. Such other and further terms and conditions as may be prescribed by the State Apprenticeship Commission of Oregon not inconsistent with the provisions hereof.

SEC. 7. *State apprenticeship commission.*—The State superintendent of public instruction, the State labor commissioner and a member of the State industrial accident commission, to be designated by the governor, shall constitute the State Apprenticeship Commission of Oregon. Such commission shall elect its own chairman and appoint a secretary, who shall serve without pay as such secretary, and prescribe rules relative to the business to be transacted by it. It shall be the duty of the State Apprenticeship Commission of Oregon, and it shall have the power, jurisdiction and authority, to investigate, ascertain, determine, and fix such reasonable classifications, and to make rules and regulations and such general and/or special orders as shall be necessary to carry out the intent and purpose of this act, and may prescribe the authority and duties of its deputies. Said commission shall also promulgate rules and regulations for the transfer or termination of such indenture.

SEC. 8. *Local commissions.*—The names of the members of the local apprenticeship commission and/or apprenticeship subcommissions, if any such exist, and the names of the officers thereof authorized to approve the indentures shall be filed with the State apprenticeship commission.

SEC. 9. *School training and attendance.*—It shall be the duty of all school officials to cooperate with the State apprenticeship commission, the State board for vocational education, and employers of apprentices in providing the necessary training classes for apprentices. The apprentice shall be required to attend such classes not less than the equivalent of four hours per week, either within or without the usual working hour, as a part of his working obligation.

Training Electrical Workers in Philadelphia

IN DECEMBER, 1929, the educational director of the Electrical Workers and Operators' Union No. 98, in Philadelphia, was requested by the executive board to act in its behalf in making arrangements in cooperation with the public schools of that city for a training system for electrical apprentices. A brief report on the setting up of this system is published in the February, 1931, issue of the Journal of Electrical Workers. Prior to the request just referred to, attempts had been made to carry on voluntary classes in the union's own building with a teacher supplied by the organization. The undertaking was expensive and was not a success.

Following this failure, an advisory committee of officers was appointed and an apprenticeship scheme drawn up to govern the union's proposed program which received the approval of the board

and was submitted to the membership for adoption. This procedure was important, for in order to carry out such a program it was necessary to be absolutely assured of the organization's support. No modifications were made in the plan as written, the chief features of which were: Provision for compulsory school attendance of all apprentices (all nonjourneymen are classified as apprentices), and for administrative and enforcement methods.

After the school authorities had unofficially assured the union committee of their assistance, conferences were held between the two cooperating parties to decide upon what should be taught in the classes about to be organized. Official approval and an appropriation were secured and in due course the board of education authorized the opening on Saturdays of the Simon Gratz Senior High School, thus placing at the union's disposal a $2,000,000 building, and equipment worth nearly $50,000.

The examination of applicants and the appointment of teachers were next in order and while this machinery was being put in operation certain interested members of the union set to work at the problems of apprenticeship and school organization, including the fixing of an apprenticeship expiration date for each individual, a consequent card rating, his assignment to courses, and the construction of a master teacher's roster to provide these courses for the whole group. The most important part of the organization work, however, is declared to be a personal interview with each apprentice.

Discussing the difficulties of working out this educational scheme, the writer reports that the 150 apprentices were found to range in age from 16 to 43, and in electrical experience from that of recent beginners up to 7 years with one to a dozen employers. The previous education of some of these apprentices terminated with the sixth grade, while others had been in college, gone to evening schools, or availed themselves of correspondence courses.

> Almost any combination of case factors may be found. On the allotted basis of 20 students per teacher, the gross number limits us to 7 teachers, who are to work but 4 hours at the same time. Theoretically, each teacher should carry his proportionate share of the load, so as not to work a hardship on another. No opposite extremes should be placed in the same group at the same time, if both are to be taught satisfactorily. What courses of study shall we offer which will best meet the needs of this heterogeneous group? These are the jumbled pieces of a machine which we must fit together and make work.

Policy of Promotion by Subject

To SOLVE the complex problem outlined in the preceding paragraph, a "promotion by subject school" with individual instruction was decided upon. Such a plan gives the student the opportunity to follow the courses he is assigned to as an individual rather than as one belonging to a classified group. Under this scheme it is quite possible for an apprentice to be with an elementary group for one study period and with an advanced group for the next study period. In case two of his requisite subjects are taught at the same hour, he may be allocated to a class "off grade" and dealt with individually by the teacher. This flexible scheme makes it possible for a student to repeat easily a course in which he has failed without being held back in other classes.

Tuition Fees

ON MARCH 1, 1930—the opening day of the school—each teacher was given a list of the students assigned him and every apprentice had a statement of his rating as an apprentice and a roster card showing where and when he was to report. As soon as the students were registered work was begun.

According to the regular rules of the department of school extension, every student must deposit a registration fee of $1, which is returned to him each year if he has a record of 75 per cent for attendance. He is also required to pay the school board $2 per annum as a laboratory fee.

In order to improve the attendance, a fine of $1 was instituted for each unexcused absence for the latter part of the first school year ending June 26, 1930. At the reopening of the school the following September, the $1 fine was changed to one day's suspension from work for each absence or lateness, three unexcused lapses along this line resulting in the student's being dropped. During the school term, apprentices are not allowed to work Saturday mornings even though they have the opportunity of working at double rates.

Classes for Journeymen

THE work of organizing training facilities for journeymen was made less difficult than for apprentices. The men were permitted to choose between 4 hours on Saturday morning or 2 hours on 2 evenings a week. Journeymen also designate the subjects they desire to follow, classes being made up on the basis of signed requests.

Present Curriculum

THE Saturday morning school now has 12 teachers, 85 journeymen, and 175 apprentices, while the evening classes are attended by 50 journeymen. There are also approximately 20 members of the union availing themselves of such schools as Drexel or the Spring Garden Institute. Work in vocational teacher training is being taken at the University of Pennsylvania by six local members.

The subjects making up the curriculum for the apprentices are listed below:

English.—Single periods, two grades. Designed to help the student with what he may need for everyday use, both in an oral and written manner. Includes trade terms, pronunciation, oral expression, spelling, punctuation, etc. Talks on industrial economics and personal hygiene.

Mathematics.—Single periods, four grades. Fractions, decimals, percentage, mensuration, algebra, plane geometry, and trigonometry. Greater emphasis on fundamentals. Effort to start student at his own level.

Electrical drawing.—Double periods, two grades. Entirely individualized instruction, each working his problem at his own pace. Not intended as a draftsman's course but rather to familiarize student with the use of electrical and mechanical drawings, charts, and tables; along with the ability to express oneself graphically.

Electric wiring.—Double periods, two grades. Study and use of tools, materials and standard practice. Great stress on ability to think out, draw, and construct fundamental circuits. All types of work included. Given to all beginners.

Aim to cultivate neatness, respect for craftsmanship, coordination of hands and mind, and the desire to do things well. Instructor to pass judgment on mechanical aptitude.

Electrical theory.—Single periods, two grades. Fundamental laws and principles of electricity and magnetism. Meaning and use of units, measurements, and formulas and the theory of electrical equipment in general.

Electrical laboratory.—Double periods, two grades. Prerequisite: Wiring and theory or equivalent experience. Practical application and proof of theory. Connecting and testing of all types of meters, motors, generators, transformers, etc. Observing and recording of all results required.

Metal and machine shop practice.—Double periods, one grade. Knowledge and use of metal-working tools and processes related to electrical trade. Laying out, cutting, bending, drilling, tapping, threading, soldering, brazing and forging of metals.

In addition to the apprentices in the electrical trades, groups of apprentices are being sponsored in the school by the carpenters, the sheet-metal workers, and the Metal Manufacturers Association.

INDUSTRIAL DISPUTES

Strikes and Lockouts in the United States in March, 1931

DATA regarding industrial disputes in the United States for March, 1931, with comparable data for preceding months are presented below. Disputes involving fewer than six workers and lasting less than one day have been omitted.

Table 1 shows the number of disputes beginning in 1927, 1928, 1929, and 1930, number of workers involved, and man-days lost for these years, the number of industrial disputes for each of the months—January, 1929, to March, 1931, inclusive—the number of disputes which began in these months, the number in effect at the end of each month, and the number of workers involved. It also shows, in the last column, the economic loss (in man-days) involved. The number of workdays lost is computed by multiplying the number of workers affected in each dispute by the length of the dispute measured in working-days as normally worked by the industry or trade in question.

TABLE 1.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF EACH MONTH, JANUARY, 1929, TO MARCH, 1931, AND TOTAL NUMBER OF DISPUTES, WORKERS, AND MAN-DAYS LOST IN THE YEARS 1927 TO 1930

Month and year	Number of disputes		Number of workers involved in disputes		Number of man-days lost during month or year
	Beginning in month or year	In effect at end of month	Beginning in month or year	In effect at end of month	
1927: Total	734		349,434		37,799,394
1928: Total	629		357,145		31,556,947
1929: Total	903		230,463		9,975,213
1930: Total [1]	623		156,221		2,731,664
1929					
January	48	36	14,783	39,569	951,914
February	54	35	22,858	40,306	926,679
March	77	37	14,031	40,516	1,074,468
April	117	53	32,989	52,445	1,429,437
May	115	73	13,668	64,853	1,727,694
June	73	57	19,989	58,152	1,627,565
July	80	53	36,152	15,589	1,062,428
August	78	43	25,616	6,714	358,148
September	98	49	20,233	8,132	244,864
October	69	31	16,315	6,135	272,018
November	61	32	10,443	6,067	204,457
December	33	21	3,386	2,343	95,541
1930					
January	42	21	8,879	5,316	182,202
February	44	33	37,301	6,562	436,788
March	49	34	15,017	5,847	289,470
April	60	41	5,814	5,711	180,445
May	64	30	9,281	4,640	192,201
June	54	34	13,791	8,499	150,627
July	76	31	14,219	5,039	148,982
August	51	32	15,902	7,161	144,530
September	69	41	15,946	13,409	202,874
October	46	34	10,842	15,649	336,250
November	43	28	4,380	7,424	270,254
December	25	8	4,849	5,385	197,041
1931					
January	56	20	10,147	2,927	181,034
February [1]	59	44	22,588	15,378	255,811
March [1]	31	36	24,200	30,157	487,785

[1] Preliminary figures, subject to change.

Occurrence of Industrial Disputes, by Industries

TABLE 2 gives by industry the number of strikes beginning in January, February, and March, 1931, and the number of workers directly involved.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN JANUARY, FEBRUARY, AND MARCH, 1931

Industry	Number of disputes beginning in—			Number of workers involved in disputes beginning in—		
	January	February	March	January	February	March
Bakers		2			14	
Barbers	1			6		
Building trades	18	9	10	918	465	970
Chauffeurs, teamsters	3	4	3	519	244	39
Clothing	7	12	3	915	7,245	119
Electrical, gas appliance, and radio workers		1			14	
Farm labor		1			2,000	
Fishermen	2			4,500		
Food workers	1			920		
Furniture	3	3	1	70	193	70
Glass workers			1			75
Laundry workers			1			12
Leather	1	3		16	163	
Light, heat, power, and water		1			45	
Longshoremen, freight handlers		1	1		2,000	50
Lumber, timber, and millwork		1			12	
Metal trades	2			29		
Miners	5	3	4	759	385	22,306
Motion-picture operators, actors, and theatrical workers	1		2	6		29
Printing and publishing	1			21		
Textiles	10	17	5	1,358	9,708	530
Other occupations	1	1		110	100	
Total	56	59	31	10,147	22,588	24,200

Size and Duration of Industrial Disputes, by Industries

TABLE 3 gives the number of industrial disputes beginning in March, 1931, classified by number of workers and by industries.

TABLE 3.—NUMBER OF INDUSTRIAL DISPUTES BEGINNING IN MARCH, 1931, CLASSIFIED BY NUMBER OF WORKERS AND BY INDUSTRIES

Industry	Number of disputes beginning in March, 1931, involving—				
	6 and under 20 workers	20 and under 100 workers	100 and under 500 workers	1,000 and under 5,000 workers	5,000 workers and over
Building trades	1	4	5		
Chauffeurs, teamsters	2	1			
Clothing		3			
Furniture		1			
Glass workers		1			
Laundry workers	1				
Longshoremen, freight handlers		1			
Miners		1	1	1	1
Motion-picture operators, actors, and theatrical workers	1	1			
Textiles		2	3		
Total	5	15	9	1	1

In Table 4 are shown the number of industrial disputes ending in March, 1931, by industries and classified duration.

TABLE 4.—NUMBER OF INDUSTRIAL DISPUTES ENDING IN MARCH, 1931, BY INDUSTRIES AND CLASSIFIED DURATION

Industry	Classified duration of strikes ending in March, 1931			
	One-half month or less	Over one-half and less than 1 month	1 month and less than 2 months	2 months and less than 3 months
Building trades	7	2		
Chauffeurs, teamsters	2		1	
Clothing	3	1	1	1
Electrical, gas appliance, and radio workers		1		
Farm labor	1			
Fishermen				1
Furniture	2			
Glass workers	1			
Laundry workers	1			
Longshoremen, freight handlers	1			
Miners	2		1	1
Motion-picture operators, actors, and theatrical workers	1			
Textiles	3	2	3	
Total	24	6	6	3

Principal Strikes and Lockouts Beginning in March, 1931

Anthracite coal miners, Pennsylvania.—A strike of some 20,000 miners, affecting the Glen Alden Coal Co. of Wilkes-Barre, is reported to have begun on or about March 19, because of numerous alleged grievances involving the replacement of veteran workers by new men and the movement of mules by miners to and from work on company's time, to which company objected.

The miners at the Lance No. 11 colliery of the company, at Plymouth, went out on March 19, after which the strike spread to the other collieries of the company in Wyoming and Lackawanna Valleys.

The strike was called off by the miners' general grievance committee on April 8, following the acceptance of the report of a subcommittee which negotiated with the district officers of the union, who had opposed the strike as unlawful.

The president of the company, it is said, agreed to meet the miners' special committee in conference with district and international officers of the union for a general discussion of the alleged "intolerable conditions" which led to the walkout.

It is understood that meanwhile operations were resumed in all affected collieries on April 9.

Bituminous coal miners, Illinois.—The mining operations of the Old Ben Coal Corporation at West Frankfort, Johnston City, Christopher, and Ezra were affected by an unsuccessful strike of about 1,849 miners during March 6 and 7, because of the company's decision to close indefinitely mine No. 18. The men wanted the mine kept open and operated part of the time, alternating with the other mines.

Principal Strikes and Lockouts Continuing into March, 1931

Textile workers, Philadelphia.—The strike of upholstery weavers which began on February 2, when they refused to accept an arbitration award reducing wages 14 per cent, is still in progress.

Hosiery workers, Philadelphia.—The strike of full-fashioned hosiery workers affecting the nonunion and open-shop mills, which began on February 16, is still in effect. A number of the mills, according to press reports, have accepted the union terms.

Conciliation Work of the Department of Labor in March, 1931

By Hugh L. Kerwin, Director of Conciliation

THE Secretary of Labor, through the Conciliation Service, exercised his good offices in connection with 50 labor disputes during March, 1931. These disputes affected a known total of 48,283 employees. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached the strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workers directly and indirectly involved.

On April 1, 1931, there were 40 strikes before the department for settlement and in addition 10 controversies which had not reached the strike stage. The total number of cases pending was 50.

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
					1931	1931		
United Upholsterers, North Side, Pittsburgh, Pa.	Strike	Upholsterers	Wages and conditions. 1 union man discharged.	Adjusted. Returned; no wage cut; satisfactory conditions.	Feb. 26	Mar. 5	25	25
Pilot Radio Tube Corp., Lawrence, Mass.	do	Employees	Low wages and working conditions.	Adjusted. Allowed increases and improved conditions.	Feb. 24	Feb. 28	200	
Center Trucking Co., New York City.	do	Drivers, riggers, and helpers.	Asked recognition of shop steward.	Adjusted. Company accepted shop steward but reserved right to hire and discharge.	Feb. 10	Feb. 21	10	
Post office, Baltimore, Md	do	Electricians	Working conditions	Adjusted. Working conditions satisfactory.	Feb. 28	Mar. 8	20	280
Coal miners, southeastern Kentucky.	Controversy	Miners	do	Pending	Mar. 3		(1)	
Ambassador Theater, Reading, Pa.	Strike	Building trades	Contractor refused to employ union men.	Unclassified. Returned without change.	Feb. 19	Feb. 23	42	
Metropolitan Dress Co., Philadelphia, Pa.	do	Dressmakers	Asked wage increase and recognition of Needle Trades Union.	Adjusted. Other workers employed.	Feb. 16	Mar. 7	100	
McKay Milk Co., Brooklyn, N. Y.	do	Drivers	Wages, conditions, and discharge of 2 drivers.	Unable to adjust	Feb. 26	Mar. 4	19	8
Frank Dyke Co., Holland, Mich	do	Bricklayers	Cut 25 cents per hour—to $1.25	Adjusted. Former rate of $1.50 per hour restored.	Feb. 27	do	8	40
Building trades, Holland, Mich	do	Plasterers	Failure to employ one-half local men.	Adjusted. Agreed to employ one-half local men.	do	do	15	60
G. G. G. Shop, Brooklyn, N. Y.	do	Clothing workers	Objection to sending work to out-of-town shops.	Adjusted. Satisfactory settlement.	Mar. 1	Mar. 5	400	40
Underwood Typewriter Co., Hartford, Conn.	Controversy	Metal polishers	All wages cut 10 per cent	Adjusted. Accepted 2½ per cent wage cut.	Mar. 2	Mar. 20	100	
Blumenthal Co., Shelton, Conn	Strike	Weavers	Wage cuts and speed-up system	Unable to adjust	Feb. 26	Apr. 3	250	1,700
Blumenthal Saltex Looms, Bridgeport, Conn.	do	do	Sympathy with Shelton Mills	Adjusted. Returned without change.	Mar. 2	Mar. 23	350	
Blue Moon Silk Hosiery, Croydon, Pa.	do	Hosiery workers	Change from piece work to week work.	Pending	Feb. 15		400	
High school building, New Rochelle, N. Y.	do	Steam fitters	Nonresident steam fitters asked to deposit union cards.	Adjusted. Cards deposited with local steamfitters' union.	Feb. 27	Mar. 10	8	40
Milk-wagon drivers, Philadelphia, Pa.	Threatened strike.	Drivers	Discharges for union affiliation	Pending	Mar. 9		1,137	
Kaufman Stores, The Bronx, N. Y.	Strike	Grocery and dairy clerks.	Wages and working conditions	Adjusted. Union agreement concluded.	Feb. 23	Mar. 1	25	
Louis Altman & Co., Egg Harbor, City, N. J.	do	Pressers, sewers, etc.	Wages cut 15 per cent	Adjusted. Returned; former wages restored.	Feb. 24	Mar. 4	110	

[1] Not reported.

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LABOR DISPUTES HANDLED BY THE CONCILIATION SERVICE DURING THE MONTH OF MARCH, 1931—Continued

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
					1931	1931		
Laundry drivers, Chicago, Ill	Strike	Drivers	Working conditions	Pending	Mar. 3		8	30
Filipino farm laborers, San Luis Obispo, Calif.	do	Laborers	Wages cut from 35 to 30 cents per hour.	Adjusted. Strike called off; cut accepted and negotiations continued.	Mar. 6	Mar. 11	500	1,500
Levy & Devaney, Bridgeport, Conn.	do	Pocketbook makers	Unionization attempted by local union.	Pending	Feb. 23		40	
Prudential Life Co. Building, Newark, N. J.	do	Building laborers	Wages $8 per day—$2 below prevailing scale.	do	Mar. 9		200	200
Gunning Silk Mill, Easton, Pa	do	Weavers	Wages cut	do	Mar. 1		25	
Starr Silk Mill, Danville, Pa	do	do	Bonus discontinued, amounting to $2 per week.	Adjusted. Part of former workers returned; part new workers.	Mar. 7	Mar. 26	35	
Bricklayers, Detroit, Mich	Lockout	Bricklayers	Nonunion men employed	do	Mar. 1		25	2,820
Ironworkers, Detroit, Mich	do	Ironworkers	do	Adjusted. (Terms not yet reported.)	Mar. 3	Apr. 9	30	400
Carpenters, Detroit, Mich	do	Carpenters	do	Pending	do		60	3,000
Hudson River Navigation Co., New York City.	Strike	Longshoremen	Asked restoration of wage cut from 50 to 35 cents per hour.	do	Mar. 19		50	
Post office building, Passaic, N. J.	Controversy	Building	Failure to pay agreed rate of wages.	Adjusted. Contractor paid agreed rate of wages.	Jan. 25	Mar. 13	100	300
Hunter College building, New York City.	do	do	do	Adjusted	Jan. 10	do	150	300
Veterans' Hospital, Wilmington, N. C.	Strike	do	Wage dispute	Adjusted. Bricklayers allowed $13 per day; laborers, $9.	Mar. 3	Mar. 22	92	60
Picture-theater operators, Hammond, Ind.	Controversy	Operators	Alleged violation of contract	Pending	Mar. 20		(1)	
Capitol Theater, Whiting, Ind	Strike	do	Wage cut, conditions, and agreement.	Adjusted. Pay restored; new agreement concluded.	do	Mar. 22	4	50
Building, Pittsburgh, Pa	do	Roofers, etc	Renewal of agreement	Pending	Mar. 18		100	500
Grinnell Co., Chicago, Ill	do	Teamsters	Discharge of 1 driver for inefficiency.	Adjusted. Union representatives upheld the discharge.	Mar. 10	Mar. 20	6	
Warner Bros. Theater, Youngstown, Ohio.	do	Building trades	Wages; nonunion sheet-metal workers employed.	Unclassified. Union men to complete job; no change in wages; settled before arrival of commissioner.	Mar. 13	Mar. 23	72	
Building laborers, Hackensack, N. J.	Threatened strike.	Building	Laborers employed at $9 per day were paid only $7.	Adjusted. All received amount due, $4 each.	Mar. 10	do	60	20
Building, Seattle, Wash	Controversy	do	Asked 5-day week and recognition of laborers' union.	Adjusted. Wages, hours, and conditions unchanged till April, 1934.	Mar. 1	Apr. 1	7,500	2,500
Fishing Vessel Owners' Association,	Strike	Deep-sea fishermen	Prices for products and equip-	Adjusted. Returned. Each side	Jan. 1	Mar. 24	1,200	

Fishing Vessel Owners' Association, Seattle, Wash.	Strike	Deep-sea fishermen	Prices for products and equipment; distribution of expenses.	Adjusted. Returned. Each side made concessions.	Jan. 1	Mar. 24	1,200	------
Glen Alden Coal Co., Scranton, Pa., and vicinity.	do	Miners	Working conditions	Adjusted. Returned; grievances to be finally settled by committees.	Mar. 19	Apr. 9	20,000	------
Shell Oil Co., California	Controversy	Building trades	do	Pending	Mar. 1	----------	(1)	------
Building, Detroit, Mich	Strike	Terrazzo mechanics.	New agreement, covering wages and conditions.	Adjusted. New agreement allows $1.12½ per hour.	Mar. 23	Apr. 4	60	------
Do	do	Terrazzo helpers	do	Adjusted. Helpers allowed 80 cents and base men 90 cents per hour.	Jan. 1	Mar. 24	200	------
Building, Dallas, Tex	Controversy	Ironworkers and plasterers.	Jurisdiction of setting steel and calking door and window frames.	Adjusted. Negotiations continued to fix jurisdiction.	Mar. 18	Mar. 25	100	------
Sontag Silk Corporation, Allentown, Pa.	Strike	Silk workers	Asked 8-hour day instead of 10	Adjusted. Accepted 9-hour shift	Mar. 23	Mar. 30	41	86
Westmorland Glass Co., Jeannette, Pa.	do	Glass workers	Objection to wage schedules	Unclassified. Accepted company's terms before arrival of commissioner.	Mar. 23	Mar. 25	75	------
Pilgrim State Hospital, Brentwood, Long Island, N. Y	Controversy	Building trades	Jurisdiction of tile, slate, and brick work.	Adjusted. Returned to work, jurisdiction not decided.	Mar. 1	Apr. 9	88	184
Belmont Silk Corporation, Forty Fort, Pa.	Strike	Silk workers	(1)	Pending	Mar. 31	----------	(1)	------
Smoockler Manufacturing Co., Philadelphia, Pa.	do	Garment workers	Wage increase and union recognition.	Adjusted. Company signed agreement with Amalgamated Clothing Workers' Union whose members did not ask increase.	Mar. 24	Apr. 8	100	------
Total							34,140	14,143

[1] Not reported.

Strikes and Lockouts in Canada, 1913 to 1930

THIS record of the strikes and lockouts in Canada from 1913 to 1930 is from the Canadian Labor Gazette of February, 1931:[1]

STRIKES AND LOCKOUTS IN CANADA, 1913 TO 1930

Year	Number of disputes		Disputes in existence in the year		
	In existence in the year	Beginning in the year	Employers involved	Workers involved	Time loss in working days
1913	152	143	1,077	40,519	1,036,354
1914	63	58	261	9,717	490,850
1915	63	62	120	11,395	95,042
1916	120	118	332	26,538	236,814
1917	160	158	758	50,255	1,123,515
1918	230	228	782	79,743	647,942
1919	336	332	1,967	148,915	3,400,942
1920	322	310	1,374	60,327	799,524
1921	168	159	1,208	28,257	1,048,914
1922	104	89	732	43,775	1,528,661
1923	86	77	450	34,261	671,750
1924	70	64	435	34,310	1,295,054
1925	87	86	497	28,949	1,193,281
1926	77	75	512	23,834	266,601
1927	74	72	480	22,299	152,570
1928	98	96	548	17,581	224,212
1929	90	88	263	12,946	152,080
1930	67	67	338	13,768	91,797

In 1930 there were only 67 strikes and lockouts in the Dominion, which was the lowest number since 1900, except for 1914 and 1915, when in each year there were only 63 disputes. While there were a few hundred more employees involved in disputes in 1930 than in 1929 and in 5 other years since 1900, the 1930 resultant time loss was less than for any other year since the records were begun.

Of the total disputes in 1930, 31.3 per cent occurred in the manufacturing industry; 28.4 per cent in the construction industry; and 22.3 per cent in the mining industry. Of the total time loss from these same strikes and lockouts, disputes in the manufacturing industry accounted for 43.6 per cent; disputes in the mining industry for 26.3 per cent; and disputes in the construction industry for 13.5 per cent.

Strike of Cooperative Employees in Norway

THE office employees of the Norwegian Cooperative Wholesale Society went on a strike which lasted from November 12 to 19, 1930. The strike was the result of the failure of the union and the cooperative society to agree on the terms of a new contract. According to an account given in the January 10, 1931, issue of La Coopération Belge, the employees demanded a 40 per cent increase in the minimum wage and an increase in the annual paid vacation from 2 to 3 weeks.

[1] The accompanying table is the result of a revision of the published record on industrial disputes in Canada from 1901 to 1930, which figures now include strikes resulting in a time loss of 10 or more man-days, and also a number of disputes which had been omitted owing to lack of information. For further details of revision, see source cited above.

The announcement of the strike created considerable public interest not only because a strike of office employees was unusual but because these were employees of a cooperative association whose members are themselves workingmen.

The wholesale society pointed out that it had had satisfactory relations with the trade-unions for the past 25 years, that the wages and working conditions in the organization were already good—better than those accorded in private employment—and that in the matter of vacations, payment of wages in cases of sickness, etc., the cooperative movement had always led the way. But it stated that cooperative societies "reserve the right to decide for themselves by how much the wages paid by them shall be in excess of those paid by private employers." The directors of the wholesale felt unable to meet the demands of the employees and pointed out that the cooperative movement was not in the position of a monopoly which could raise prices every time costs increased, but must meet the competition of all the private dealers. "Consumers without distinction as to rank or position demand merchandise at reasonable prices. The day that the cooperatives must sell at higher prices, because of the cost of the pay roll, they are irremediably lost."

The fact that the strike was directed by the general union of commercial and office clerks, which has in membership private as well as cooperative employees, led the wholesale to charge that the strike was brought to secure concessions that could be used as an entering wedge in negotiations with private employers.

The parties to the dispute having come to a deadlock, the National Trade-Union Commission intervened and proposed that the matters in dispute be submitted to an arbitration committee. This proposal was accepted and the employees returned to work pending decision by the committee.

LABOR ORGANIZATIONS

New Union of Cooperative Employees

AT THE time of the seventh cooperative congress, held at Superior, Wis., October 20–22, 1930, a communication was presented by a group of employees of the cooperative stores in the Mesabe Range district of Minnesota, who had taken the preliminary steps toward the formation of an industrial union of cooperative employees and desired the indorsement of the congress. Although no opposition was voiced toward the prospective new union, indorsement was withheld, the congress taking the position that this would constitute an indorsement of dual unionism, since unions already exist in the respective trades.

The group of employees which had sent the petition has gone ahead with its plan and has established the Cooperative Workers' Union, to which all wage workers employed by either consumers' or producers' cooperative societies are eligible.

The purposes of the new union are (1) to unite all these employees for the purpose of protection, (2) to educate the members in the ideals of both the cooperative and labor movements and to "cultivate their occupational ability," (3) to promote and support other labor unions in the class struggle, (4) to support the cooperative movement in its effort to better the living conditions of the working class, and (5) to promote a better understanding between the employees and the cooperative societies "as to their duties and rights. Union members shall do their best to have all labor disputes settled in a peaceable manner, without causing injury or hardships to cooperative organizations which are mainly promoted and supported by the workers and farmers."

Initiation fees are $1 for men and 50 cents for women, and the regular dues 50 cents a month for men and 25 cents for women. Failure to pay dues for two months removes the member from good standing.[1]

Trade-Union Membership in Brazil

THE membership of the 727 trade-union organizations in Brazil, given below, is taken from an article appearing in the November 17, 1930, issue of Industrial and Labor Information, issued by the International Labor Office.

[1] Data are from Cooperative Pyramid Builder, Superior, Wis., January, 1931.

MEMBERSHIP OF LABOR ORGANIZATIONS IN BRAZIL

Trade-union	Membership	Trade-union	Membership
Clerical workers	193,650	Printers	19,050
Railway men	95,780	Metal workers	18,720
Cotton industry	72,120	Dockers	16,370
Building workers	68,280	Agricultural workers	8,820
Transport workers	63,280	Teachers	5,280
Food and drink trades	55,800	Butchers	4,780
Leather trades	51,740	Hairdressers	3,070
Engine drivers, stokers, etc	42,640	Miscellaneous trades	10,300
Seamen and fishermen	41,150	Unions of alien workers (miscellaneous trades)	63,800
Public service workers	36,720		
Domestic servants, waiters, etc	35,620		
Woodworkers	23,200	Total	930,170

FAMILY ALLOWANCES

Family Allowances in Postal, Telegraph, and Telephone Services

THE data here presented were published in the November, 1930, issue of Monthly Notes, of the Family Endowment Society, London, and are based on a report submitted in August, 1930, to the sixth congress of the Postal, Telegraph, and Telephone International, at Copenhagen. This report was based on information received on questionnaires returned by 20 countries.

The survey disclosed that family allowances were paid in the postal, telegraph, and telephone services of Australia, Austria, Belgium, Czechoslovakia, Danzig, Estonia, France, Germany, Netherlands, Latvia, Luxemburg, Saar Territory, and Switzerland. In a considerable number of these countries household allowances are also granted, as well as rent allowances, reductions in taxation and in railway fares, and other privileges to families. The seven countries reported as having no family-allowance system in the postal, telegraph, and telephone service are Canada, Denmark, Great Britain, Greece, the Irish Free State, Palestine, and the United States.

According to the report under review, the general purpose of all family allowance schemes is to effect a closer relationship between the employee's pay and his family responsibilities. This broad field offers room for wide diversity in administrative details and allowance rates.

Systems in operation.—The accompanying table gives the approximate amounts of the weekly allowances paid, together with estimates as to the proportions such grants constituted of the remaining wage bill:

FAMILY ALLOWANCES IN POSTAL, TELEGRAPH, AND TELEPHONE SERVICES

[Conversion into United States currency on basis of shilling=24.33 cents, penny=2.03 cents]

Country	Allowance for first child		Country	Allowance for first child	
	Amount per week	Per cent of remaining expenditure on salaries and wages		Amount per week	Per cent of remaining expenditure on salaries and wages
Australia	$1.22	3	Germany	$1.22	7½
Austria	.16	----------	Latvia	.57–1.14	8½
Belgium	.20	1	Luxemburg	.34	5
Czechoslovakia	.73–1.10	7	Netherlands	.49–1.95	4½
Estonia	.27–.55	4½	Saar Territory	1.22	----------
France	.53	5½	Switzerland	.49	3

Ordinarily, the allowances are granted on a monthly basis per child, the same rates being paid to all staffs. In Australia, however, allowances are not paid to those with annual incomes above £500 ($2,433.25), while in Estonia there is an income limit of 145 kroon ($38.86) per month. In Czechoslovakia and in the Saar a distinction is drawn between civil-service employees and other postal, telegraph, and telephone officials; here the higher grades receive larger allowances.

In Czechoslovakia, however, the allowance for a wife varies inversely with the wage rate. In the Netherlands and Latvia allowances are computed on the basic wage, with minimum and maximum limits on the grants per child. In Luxemburg the amount of the allowance changes with the cost-of-living index number and in Estonia the allowance is larger for the towns than for the rural districts.

In France, Belgium, Austria, and Danzig, the allowance per child increases substantially after the first. The French allowance, for example, ranges from 660 francs ($25.87) per annum for the first child to 1,920 francs ($75.26) for the fourth and subsequent children. In the Saar higher grants are made for older children. In the remaining countries flat rates prevail.

The age limits for children receiving allowances are very high—in many countries as high as 18 years—while in Danzig these grants are normally made until the child reaches 24 years of age. The Australian system seems to be the only one under which the allowances are discontinued at the school-leaving age. Frequently grants are made for invalid children regardless of age.

In nearly all cases allowances are granted to a woman employee if her family is wholly dependent upon her.

The report points out that one of the most important aspects is the source from which the money is taken. Has the granting of family allowances meant merely a redistribution of existing wages between men with dependents and those without, or has it meant a net addition to the total sum allocated to the remuneration of the staff? Only in the Australian service does the latter seem to have been the case; the A. P. W. Union points out that in the Federal service pay has been reduced by about the average cost of the allowances per employee. No other country reports a reduction in the salaries of the unmarried men.

Future developments.—In all of the countries listed in the above table (with the exception of Czechoslovakia, where it is reported that the postal, telegraph, and telephone administration is attempting to abolish family allowances), "the system seems likely to be retained or extended in the postal service."

In Australia where, with the exception of New South Wales, there is no family-allowance system in operation outside the public services, the Postal, Telegraph, and Telephone Union states that public opinion is decidedly favorable to an expansion of the scheme.

Attitude of unions.—The countries in which there are family allowance systems are, it is reported, almost all in favor of these subsidies, while the countries where there is no scheme of this kind are against its establishment. There are, however, some exceptions. In the Netherlands the workers organized on religious lines are very favorable to family allowances, while the principal Dutch union is opposed to these grants on the basis that such payments tend to depress wages and takes the attitude that if large families be given relief, such relief should come from the State on behalf of all citizens and not as a part of the civil-service wage system.

On the other hand, the Greek Postal, Telegraph, and Telephone Union is anxious to have a family-allowance system introduced. In the six other countries reporting that these grants were not made in their postal, telegraph, and telephone service, the attitude of the unions toward such a system is distrustful.

The greater number of the organizations reported that they would prefer to have family allowances paid direct by the State to all

citizens as a social service rather than to have such grants made in connection with wages. Furthermore, most of the postal, telegraph, and telephone unions in the countries in which family allowances are paid would like to have changes made in the existing schemes, generally in the form of higher grants or by the payment of a flat allowance rate.

Family Allowances in the Roubaix-Tourcoing Textile Industry

PERSONS entitled to benefit by the family-allowance system of the Consortium of the Roubaix-Tourcoing Textile Industry belonged to 58,715 families and allowances were paid for 99,162 children under 13 years of age, according to the annual report of that organization on its welfare work in 1930.[1]

The distribution of children under 13 years of age in families was as follows: Number of families with one child, 34,830; with two children, 13,895; with three children, 5,796; with four children, 2,597; with five children, 1,030; with six children, 406; with seven children, 114; with eight children, 41; with nine children, 6.

The Consortium's family-allowance rates per day were 2.40 francs (9 cents)[2] for one child, 6 francs (24 cents) for two children, 9.60 francs (38 cents) for three, 14.40 francs (56 cents) for four, and 18 francs (71 cents) for 5 children.

The following amounts were paid out by the Consortium for its family-allowance service, including birth bonuses: In 1927, 27,782,113 francs ($1,089,059); in 1928, 30,083,863 francs ($1,179,287); in 1929, 32,460,032 francs ($1,272,433); and in 1930, 30,138,356 francs ($1,181,424). The smaller amount paid in 1930 as compared with the previous year was due to a general strike in Roubaix-Tourcoing, one of the results of which was the withdrawal of family allowances for August and September.

There is, the report states, a growing tendency among mothers who receive family allowances to stay at home and take care of their children. On December 31, 1930, out of the 58,715 families benefiting under the system, 33,008 mothers had no gainful occupation.

[1] International Labor Office. Industrial and Labor Information, Geneva, Mar. 30, 1931.
[2] Conversions on basis of franc at par=3.92 cents.

COOPERATION

Membership and Business of Consumers' Cooperative Societies, 1929 and 1930

DATA showing the status of certain of the consumers' societies as regards business done and membership were given in the March, 1931, issue of Cooperation (New York). The table below was compiled from that source, with the exception of a few cases in which lacking figures were supplied from the bureau's own files.

The table shows the effects of the continued business depression and falling prices upon the business of the cooperative societies. Of the 36 retail societies shown, 11 had an increase in sales, but 25 had decreased sales. This unfavorable showing is not so great, however, considering that retail prices of food fell nearly 15 per cent from January 15, 1930, to January 15, 1931, and that a society would have had to handle a volume of goods nearly 17 per cent greater in 1930 in order to have the same sales (in terms of money) that were made in 1929.

Profits fell off considerably, for while 9 societies were able to make increased gains on the business operations of 1930 as compared with 1929, 20 showed smaller gains. Four societies were able to change the loss of 1929 to a profit in 1930, but in two other cases the reverse situation occurred. One society had a loss for both years, but that of 1930 was considerably less than that of 1929.

Of the 26 retail societies for which membership data for both years are given, 17 increased their membership, 7 suffered a loss, and in 2 there was no change.

All of the wholesale societies increased their sales, notwithstanding a drop of 17.6 per cent during the year in wholesale commodity prices.

DEVELOPMENT OF SPECIFIED CONSUMERS' COOPERATIVE SOCIETIES, 1929 AND 1930

Society and location	Year	Amount of business	Net profit	Number of members
Wholesale societies				
Nebraska: Farmers' Union State Exchange, Omaha	1929	$2,001,725	$59,173	6,405
	1930	2,118,212	70,850	6,529
New York: Eastern Cooperative Wholesale, New York	1929	203,756	1,365	[1] 10
	1930	314,769	[2]	[1] 10
Minnesota: Midland Cooperative Oil Association, Minneapolis	1929	448,013	7,798	[1] 45
	1930	600,239	14,804	[1] 45
Washington: Grange Cooperative Wholesale, Seattle	1929	[3] 116,720	[3] 1,074	[1] 10
	1930	302,702	1,892	[1] 10
Wisconsin: Cooperative Central Exchange, Superior	1929	1,755,627	35,798	[1] 90
	1930	1,767,760	29,735	97
Retail societies				
California: Fort Bragg Cooperative Mercantile Co., Fort Bragg	1929	166,875	2,005	304
	1930	157,857	8,714	[2]
Illinois:				
Bloomington Cooperative Society, Bloomington	1929	121,555	[4] 3,638	318
	1930	129,867	52	[2]
Waukegan & North Chicago Cooperative Association, North Chicago	1929	235,421	2,614	423
	1930	202,961	6,980	443

[1] Affiliated societies.
[2] No data.
[3] Does not include feed sales or commissions thereon.
[4] Loss.

DEVELOPMENT OF SPECIFIED CONSUMERS' COOPERATIVE SOCIETIES, 1929 AND 1930—Continued

Society and location	Year	Amount of business	Net profit	Number of members
Retail societies—Continued				
Illinois—Continued.				
Cooperative Trading Co., Waukegan	1929	$797,574	$41,984	1,527
	1930	818,753	35,565	1,814
Iowa: Cresco Cooperators, Cresco	1929	33,047	[4] 228	[2]
	1930	29,293	[4] 54	[2]
Massachusetts:				
United Cooperative Society, Fitchburg	1929	372,955	17,885	600
	1930	371,798	18,200	600
United Cooperative Society, Maynard	1929	348,593	12,675	624
	1930	292,055	5,967	[2]
Michigan:				
Settlers Cooperative Trading Co., Bruce Crossing	1929	150,458	8,299	368
	1930	142,527	5,106	378
Farmers Cooperative Trading Co., Hancock	1929	182,439	8,894	763
	1930	198,163	8,830	835
Workers Cooperative Society, Marquette	1929	111,848	4,713	225
	1930	109,746	2,181	230
Rock Cooperative Co., Rock	1929	[5] 195,684	16,207	422
	1930	[6] 156,314	7,617	503
Soo Cooperative Mercantile Association, Sault Ste. Marie	1929	686,585	43,600	605
	1930	627,099	39,495	635
Minnesota:				
Cloquet Cooperative Society, Cloquet	1929	546,767	19,249	1,301
	1930	579,505	22,000	1,398
Embarrass Cooperative Association, Embarrass	1929	130,558	7,359	382
	1930	113,099	3,778	423
State Line Farmers Cooperative Co., Emmons	1929	65,368	3,285	[2]
	1930	45,172	[6] 307	[2]
Farmers' Cooperative Mercantile Association, Kettle River	1929	80,470	5,921	365
	1930	89,691	4,904	[2]
Franklin Cooperative Creamery Association, Minneapolis	1929	3,442,292	130,157	4,270
	1930	3,149,142	107,900	4,300
Farmers Cooperative Produce Association, Moose Lake	1929	74,701	1,499	125
	1930	72,760	2,262	[2]
Elanto Co., Nashwauk	1929	148,849	7,397	558
	1930	147,753	7,034	549
Orr Farmers Cooperative Trading Co., Orr	1929	114,623	5,352	365
	1930	125,855	3,524	384
Work Peoples' Trading Co., Virginia	1929	422,404	12,746	1,040
	1930	423,245	10,536	1,047
New Jersey:				
Purity Cooperative Bakery, Paterson	1929	394,470	[4] 5,645	500
	1930	448,570	7,677	500
New York:				
Cooperative Bakery of Brownsville & Eastern New York, Brooklyn	1929	369,782	5,044	1,100
	1930	365,603	5,195	1,000
Cooperative Trading Association, Brooklyn	1929	471,523	8,912	2,451
	1930	400,826	3,657	2,650
Russian Workers Cooperative Stores, Brooklyn	1929	214,385	4,679	210
	1930	232,970	114	205
Amalgamated Cooperative, New York	1929	[7] 343,378	[7] 6,041	503
	1930	[7] 490,602	[7] 11,998	506
Consumers' Cooperative Services, New York	1929	608,959	38,330	3,397
	1930	588,884	30,242	3,606
Spencer Cooperative Society, Spencer	1929	118,125	3,471	200
	1930	111,191	299	[2]
Ohio:				
Workingmen's Cooperative Co., Cleveland	1929	273,343	8,041	1,100
	1930	246,163	7,809	1,150
New Cooperative Co., Dillonvale	1929	274,528	2,384	273
	1930	332,333	2,953	243
North Star Cooperative Store Co., Fairport Harbor	1929	465,259	[4] 171	700
	1930	413,075	2,595	695
Washington: Grange Warehouse Co., Kent	1929	225,305	3,358	311
	1930	223,446	1,972	300
West Virginia: Hinton Cooperative Mercantile Co., Hinton	1929	135,834	5,329	520
	1930	130,000	1,622	400
Wisconsin:				
Medford Cooperative Co., Medford	1929	179,829	8,107	286
	1930	175,776	8,729	[2]
Prentice Cooperative Supply Co., Prentice	1929	69,610	543	210
	1930	67,354	[4] 91	[2]
Wentworth Farmers Cooperative Association, Wentworth	1929	29,258	[4] 689	102
	1930	27,050	1	[2]

[2] No data.
[4] Loss.
[5] Not including $248,849, income from sale of forest products and cream.
[6] Not including $297,527, income from sale of forest products and cream.
[7] Includes rents from cooperative apartments.

Development of Postal Credit Unions, 1930

DATA showing the growth of the credit-union movement among postal employees are contained in Bulletin No. 11, recently issued by the Director of Service Relations of the Post Office Department.

The table following, taken from the report, shows that at the end of 1930 there were 245 such credit unions with a combined membership of 40,574 and assets of nearly $3,500,000.

DEVELOPMENT OF POSTAL CREDIT UNIONS, JANUARY, 1923, TO DECEMBER, 1930

Date	Number of credit unions	Number of members	Assets	Number of borrowers	Loans granted
January 17, 1923	1	8	$19		
December 31, 1923	7	[1]	[1]	[1]	[1]
December 31, 1924	25	[1]	[1]	[1]	[1]
April 1, 1925	36	5,087	166,390	3,756	$283,634
October 1, 1925	44	7,320	257,943	6,522	590,919
April 1, 1926	48	9,726	439,523	12,006	1,054,303
October 1, 1926	63	11,429	563,189	16,830	1,599,465
April 1, 1927	73	13,993	782,139	23,060	2,310,633
October 1, 1927	83	16,257	1,001,535	30,313	3,183,890
April 1, 1928	168	19,098	1,265,548	38,092	4,160,262
December 31, 1928	190	25,397	1,770,952	57,055	6,329,736
December 31, 1929	208	33,984	2,523,917	87,691	10,410,418
December 31, 1930	245	40,574	3,338,219	125,385	15,234,889

[1] No data.

Llano Cooperative Colony [1]

THE Llano Cooperative Colony, incorporated as the Llano del Rio Co. of Nevada, was founded in California in 1914 by Job Harriman. The site chosen was a broad mesa in the Mojave Desert about 45 miles due north of Los Angeles.

The basis of the colony was materialistic, not religious. The fundamental principles on which the colony was founded, as stated by the founder himself, were equal ownership, an equal wage, and equal social opportunities.

The Removal to Louisiana

THE location, while splendid as regards soil, climate, etc., was deficient in water, and after 3½ years, during which much development and building work was done, the colony decided to move. One of the accounts of the colony and its early history states that at the time this decision was reached there were nearly 700 persons living in the colony.[2]

A new site was chosen in Louisiana, where the company took over an abandoned mill town and some 20,000 acres of cut-over timber land near Leesville, in Vernon Parish. Only a part of the colonists, however, went to the new location.

A series of difficulties followed the removal of the colony to Louisiana. Trouble over the actions of the man left in charge of the California property and foreclosure proceedings on that property were

[1] The data on which this article is based are from Communities of the Past and Present, by Ernest S. Wooster; Allen *v.* Llano del Rio Co., 116 So. 675; descriptive pamphlets issued by the Llano Cooperative Colony; the Llano Colonist, issues of Oct. 30, 1926, Dec. 21, 1929, Dec. 6, 1930, Feb. 14, 21, and 28, 1931, and Mar. 7, 14, and 28, 1931; Communist and Cooperative Colonies, by Chas. Gide; Cooperation, August, 1927; and other data in the possession of the bureau.

[2] Wooster, Ernest: Communities of the Past and Present, 1924, p. 123.

finally settled, leaving debts of about $17,000. In Louisiana the colonists had been joined by some 25 families from Texas who were not imbued with any of the colony ideas. The Californians and Texans did not get on well together, friction over methods developed, and finally the Texans withdrew, taking with them the property they had brought in. At this time when the outlook was darkest a payment on the colony site became due. Negotiations were entered into with the Gulf Lumber Co., owner of the property, and $6,000 (lent by a new recruit to the colony) was paid down, a new and more favorable contract was entered into, and a strip of 4 acres of land with about 15 houses was purchased. Loss of some of the members of the colony, skilled workers who left to earn the high wages being paid outside for labor at that time, and a partial crop failure in 1918 and a total failure in 1919 added to the colony's troubles, "so that there was great privation inside the colony and great prosperity outside."

Then came a turn for the better. Additional money from outside was secured, and new members came, persuaded by the financial depression of 1920–21. Commonwealth College was founded by a young educator and was brought to the colony in 1923, attracting considerable attention.[3]

The Suit for Receivership

In 1927 suit for the appointment of a receiver was brought in the District Court for the Eleventh Judicial District by a shareholder who was a former resident in the colony. He contended that the colony company had failed in its purpose, since although it was organized as a profit-making enterprise it had paid no dividends. The decision of the court reviewed the situation, found that the liabilities of the colony were $1,242,311, while the assets were only $521,695, upheld the contention of the plaintiff that the organization was a profit enterprise, and held that in operating as a nonprofit, communistic colony it had gone beyond its charter. The court therefore granted the receivership and ordered the colony to pay costs of $2,500. The colony appealed to the supreme court of the State, however, which returned its decision February 13, 1928, reversing the decision of the lower court.

The receivership was asked for on a number of grounds, including the charges of insolvency, gross mismanagement of the business, misrepresentation of the living conditions and success of the colony, failure to keep proper accounts, and certain specific acts of the board of directors, including the securing of the payment of money advanced by the directors by mortgage on the property of the corporation. The court in its decision pointed out that, under the law of Louisiana, the appellant, being a shareholder but not a creditor, could not sue for receivership on the ground of insolvency.

> That ground is available only to a creditor suing as such. * * * In the case at bar, plaintiff has nothing to gain by the evidence introduced on the question of insolvency. It appears that, when the company moved to this State, it had very few assets left, and was considerably indebted. A large part of the indebtedness that then existed, if not nearly all of it, has been paid. The corporation now owns considerable land and personal property, and, so far as the record discloses, has progressed since it has been here, especially under the present management. While it owes large amounts of money, yet the evidence shows that this indebted-

[3] The college later moved to Mena, Ark., where it now is.

ness, with the exception of a small claim, concerning which some dispute arose, is not pressing. In fact, there is evidence in the record which, not including liability on stock, shows that the corporation at the time of the trial of this case was solvent. We therefore conclude that the evidence on the question of insolvency tends rather to show good management than to show the contrary.

As to the charge that the corporation was violating its charter rights by operating as a communistic or cooperative colony, the court said:

> It is true that the charter says nothing about the right of the corporation to operate upon a communistic basis, and there is nothing in it suggesting that manner of operation. However, the record makes it clear that the corporation has been conducted on a communistic or cooperative basis from its creation, and that its purpose in reality is, and has been, to colonize its members as far as possible, to the end that all might work for the benefit of the whole, and thereby improve their living conditions by conducting the various businesses and callings authorized by the charter. This cooperative policy has been kept paramount at all times. All who became stockholders knew of it, including plaintiff, and we think it safe to say that it was this communistic idea that induced them to join. In these circumstances it would be improper to place defendant in the hands of a receiver on the ground here under consideration, when, at the time plaintiff became a subscriber, he had knowledge of these facts, and signed a working contract and became a member of the colony with that knowledge. He, himself, testified that he was willing to try the cooperative plan, but is not satisfied with the czarlike administration of the present manager—a character of administration which, we may here say, we think the record does not disclose.

The evidence showed that while the company kept records of its transactions with the outside world, no accounts were kept of the cost of production, etc., of the various departments within the colony, so that "it is impossible to say from them whether a department, such as the dairy, or agricultural or milling department, is earning or losing money." As to this, however, considering that "this plan does not have in view primarily the declaration of dividends, but better living conditions for stockholders residing in the colony, that the production is largely or entirely by the membership who live, as it were, out of a common treasury, the importance of keeping a full set of books ceases, and the failure to keep such a set should not be considered gross mismanagement, calling for the appointment of a receiver."

Other acts alleged as gross mismanagement—the failure to carry fire insurance because against the principles of the colony, the acceptance of certain land in Mississippi as payment of membership in the colony, the granting of the mortgage to certain members of the board of directors to secure them for money loaned by them to the corporation—were likewise held as not constituting mismanagement calling for receivership.

The decision set aside the judgment of the lower court and ordered the plaintiff to pay the costs in both courts.

In 1929, the receiver appointed under decision of the lower court obtained judgment in that court for $5,000 for services rendered. An appeal by the colony is pending in the Louisiana Supreme Court.

Present Development of the Colony

Membership Requirements

THE corporation has an authorized capital of $5,000,000, divided into shares of $1 each. Residence in the colony is not required for membership, but a person desiring to join the organization must subscribe for $2,000 worth of stock and pay down in cash (or equivalent

value) $1,000 plus (if he is married) $200 for his wife, plus $150 for each child between the ages of 12 and 21 and $100 for each child under 12. This first payment may be made in installments. The difference between the first payment and the full-membership requirement may, at the option of the applicant, be paid in cash or worked out at the rate of $1 a day. Stock is not issued to the applicant for membership until paid for in full.

A new member comes in on one year's probation. Formerly, when the membership payment was made it could not be returned; if he left before being received into full membership he forfeited the amount paid in, as well as the bonus earned by his work. A publication of the colony states, however, that "recently the board of directors of the colony corporation adopted a resolution under the terms of which the amount of the membership fee is received, not as a payment, but as a deposit, and is held as such for one year, unless either the colony or the applicant within one year desires that it be returned." The applicant, on coming into the colony, signs the "Llano pledge" by which he agrees to do any work in the community to which he is assigned and to "accept as compensation food, clothing, and shelter and services as the colony is in a position to provide, at no time expecting returns or profits in dollars and cents." If at the expiration of the year both parties desire to continue the arrangement, the deposit becomes a payment and thereafter is not returnable. Either party may terminate the contract within the year. If the colony does so, the applicant's deposit is to be repaid within 60 days after termination; if the applicant does so, the colony may at its option delay repayment until one year after termination.

Government of the Colony

The colony is governed by a board of directors elected annually by the resident members. These directors are legally responsible for every transaction. The actual conduct of the day-by-day operations is in the hands of a general manager selected by the board of directors. He appoints the foremen of the different departments and assigns the members to their jobs; "if they have preferences, these are, of course, respected, and they are given the work they like best as soon as conditions permit."

The colony has no constitution and by-laws. It operates under a "declaration of principles."

Living Conditions and Industrial Development

Communal housing is not a feature of the colony. Each family has its own habitation, rent free, where all of the usual family activities may be carried on. As to meals the family may exercise a choice between eating at the colony cafeteria or preparing them at home.

Food, clothing, and other supplies are free and may be drawn as needed, although the members are expected to practice "judicious economy."

The colony town site of 40 acres is the original mill-town property. Besides the houses of the members and the industrial buildings it contains the community store, a hotel, a theater, and a building especially for the children of the colony. The housing accommodations have

been admittedly unsatisfactory, consisting mostly of the old buildings of the mill town. A beginning toward permanent confortable single dwellings has been made and the building program is to be pushed as fast as circumstances allow. It is stated that a comfortable house can be built at the colony for $500.

The colony children receive 8 hours' instruction each day, of which 4 hours are spent on the regular academic subjects and the other 4 in practical vocational instruction. Each child is taught, also, to play a musical instrument.

The aim of the colony is eventually to be self-sufficient, but this condition is as yet far from having been attained. Agriculture has received the greatest amount of attention thus far. Some 1,000 acres are under cultivation, according to the recent report of a firm of auditors, besides a rice ranch of about 400 acres some 80 miles distant from the colony. Various crops of vegetables and fruits are raised, the excess above what is needed for the requirements of the community being canned and sold in outside markets. Manufacturing is also carried on in certain lines, including brick, lumber products, harness, hampers and crates, brooms, milk and dairy products, peanut butter, ice, bakery products, confectionery, etc. The colony also operates a carpenter shop, a laundry, poultry farm, community store, electric-light plant, grist mill, shoe repair shop, tailor and dressmaking shop, machine shop, sheet-metal works, printing plant, blacksmith shop, acetylene welding plant, paint shop, etc. Some of these are still carried on with inadequate equipment, and the columns of the Llano Colonist have been carrying appeals to friends and sympathizers to furnish the lacking items.

A setback was sustained very recently when on March 5, 1931, the power plant and some of the other buildings and equipment were destroyed by fire.

All the property is held in common, and any profits earned through the sale of merchandise or through increased land or other values accrue to the whole membership collectively, no individual having any claim upon them.

Present Financial Condition of the Colony

DURING the time of the colonists' greatest difficulties the lumber company from which the property was purchased lent the colony $50,000, which was used to build the ice plant and cannery and to start the making of veneer, brick, and tile. In the words of the manager of the colony, the lumber company proved to be the colony's "best friends when it has come to financial support. * * * For many years they have carried the taxes on the unpurchased property that we had under contract. They never charged us interest on our land contract and have been exceptionally fair and liberal with us." Toward the end of 1929, however, the company, having finished its sawmilling operations, decided to wind up its affairs and go out of business. The colony therefore was faced with the necessity of raising the money with which to pay off this debt. It issued an appeal to outside sympathizers for aid; it also offered some of its unused land at $5 an acre.

By various means the money was raised and the obligation met on May 24, 1930. A substantial portion of the necessary cash was loaned by William Hapgood, president of the Columbia Conserve Co. of Indianapolis. As part of the agreement entered into at that time the affairs of the colony have recently been subjected to an audit by a firm of public accountants of that city, the results of which have just been made public.

The auditors' report points out that the financial status of the colony has been obscured by the fact that the California capital accounts were maintained in spite of the fact that they had no bearing on the Louisiana operations and that practically all of the California property was disposed of at the time of the removal to Louisiana.

In 1920, the present management took hold and we count the life of the corporation, as a practical business matter, from that date. It is true that capital stock issued before that time is still a book liability; but for practical purposes we have separated the amount of capital stock issued before that time from that issued after, because the proceeds of that first sold were almost entirely dissipated. The present management began in April, 1920, with liabilities almost equal to assets.

After the adjustment, eliminating the California operations, the balance sheet of the colony stood as follows:

BALANCE SHEET OF LLANO COOPERATIVE COLONY BEFORE AND AFTER ELIMINATION OF CALIFORNIA ACCOUNTS

Item	Before adjustment	After adjustment
Assets		
Cash	$4.40	$4.40
Notes receivable	910.00	910.00
Securities	40.00	40.00
Land payments due	15,257.35	15,257.35
Land, buildings, equipment, etc	394,475.06	212,750.00
Total assets	410,686.81	228,961.75
Liabilities		
Notes payable	70,415.80	70,415.80
Accounts payable	41,059.74	40,032.76
Loans and deposits	47,844.70	47,844.70
Land contracts	23,235.00	23,235.00
Total	182,555.24	181,528.26
Capital and deficit:		
Capital stock issued	738,448.00	170,727.00
California colony stock not issued	106,051.00	
Stock accumulations	238,148.78	
Installment stock account	89,424.77	
Total capital	1,172,072.55	170,727.00
Minus deficit accounts	943,940.98	123,293.51
Total capital and deficit	228,131.57	47,433.49
Total liabilities	410,686.81	228,961.75

The audit states that "while notes payable to members and friends are shown herein as liabilities, evidence is at hand to the effect that some of the items will never be subject to payment." And again:

The colony has sought to raise funds recently by offering for sale to friends outside the colony certain of its lands at $5 per acre. At September 30, 1930, a total of $6,182.32 had been recorded as received from land purchasers. However, we are informed by the management that few deeds have been given and

that no definite tracts have been allocated to the purchasers. It further appears that in several instances the funds have been donated to the colony with no thought of claiming acreage.

Between the time of the adjusted balance and the end of September, 1930 (nine months), the colony "increased its capital and liabilities by $45,452.89 and decreased certain assets by $5,975.60, the total values of $50,528.49 thus made available being applied to increase other assets by $12,248.04, to finance an operating loss of $8,747.15, and to reduce surplus by items totaling $29,533.30. * * * The cash requirements during the period included approximately $10,000 needed to take care of expenses in excess of operating receipts."

The income and expenditures of the colony during the nine-month period were as follows:

INCOME AND EXPENDITURES OF LLANO COOPERATIVE COLONY, NINE MONTHS ENDING SEPTEMBER 30, 1930

Item	Amount	Item	Amount
Income		*Expenditures*	
Store	$7,129.91	Food	$9,000.00
Ice plant	6,995.52	Farm and poultry department	7,800.00
Planing mill (manufacture of bus bodies)	2,509.16	Garage, blacksmith, and machine shops	2,000.00
Crate factory	1,421.64	Oil, gas, and automotive repairs	4,000.00
Post office	1,287.40	Ice plant	1,200.00
Plants, berries, etc	1,031.19	Hardware and supplies	2,660.00
Poultry and eggs	720.83	Sundry factory supplies and expense	1,550.00
School pay	667.50	Cement, iron, and repairs	1,100.00
Candy factory	503.99	Clothing	1,000.00
Cannery	336.09	Sundry (soap, medicine, taxes, office supplies, etc.)	4,133.54
Garage, blacksmith, and machine shops	293.12	Total	34,443.54
Woodyard	263.25		
Hotel	221.25		
Shoe shop, tailor shop, photographer	63.53	Excess of expenditures over income	9,806.64
Sundry	1,192.53		
Total	24,636.90		

Probabilities of Success of Colony

THE colony has now been in existence nearly 17 years, more than 13 of which have been spent in the present location. During that time it has sustained an unusual number of reverses and difficulties, including several fires (resulting in total loss of the property destroyed because of the failure to carry insurance); two crop failures; at least two secessions from the colony, resulting in a division of goods and assets; and a long-drawn-out lawsuit which, though ending in success for the colony, was a paralyzing and energy-wasting force while it lasted.

There are available no data to show just how many persons there were in the colony when it settled in Louisiana. Prof. Charles Gide, in his book, Communist and Cooperative Communities, states (p. 207) that there were 800 members in 1920, that this number had fallen to 350 in 1923, and to 188 in 1927. He notes this progressive diminution in numbers as a bad symptom "and one we have met with already in many of these communist societies and always as the forerunner of the end." That the diminution may not only have been halted but a turn taken for the better is indicated by a statement by the manager, in the summer of 1930, that there were at that time between 350 and

400 persons in the colony. It is also possible that the continued financial depression throughout the country has furnished additional recruits for the colony.[4] Evidence of vitality is shown by the fact that the group has made some beginning in outside colonization work. The Llano Colonist of February 28, 1931, announces the establishment of three new units, and states that the colony is considering the possibility of others.

During its period of existence the colony has fed and clothed its members, has brought into cultivation some 1,000 acres of ground, and has acquired land, buildings, and equipment valued at more than $200,000. As against this, however, accumulated deficits have wiped out more than 70 per cent of even the "adjusted" capital, and it owes loans of $47,000, besides other accounts of some $40,000.

As to the ability of the colony to support itself, Professor Gide remarks as follows:

> * * * It would seem that the Llano society has always lived a hand-to-mouth existence. I have passed the same criticism on other cooperative communities, and this one is no worse than the rest in being unable to live on the produce of its own enterprise. It has lived on the capital obtained from its shares or from the increased value of its land, which accrues rapidly in America, but this is not a proper way to live.

The company which made the audit previously referred to pointed out that the condition of the books make it impossible for the management to ascertain "what activities are profitable and desirable and which ones result in a loss and therefore should be curtailed. It should be apparent that the more revenue obtainable through colony operations, the better the degree of well-being possible in the colony's self-support. It seems to us also evident that only through adequate accounts can desirable activities be recognized and controlled by efficient management to the end that the better degree or standard of self-support may be obtained."

At the time of the lawsuit in 1927–28, the general manager acted as trustee and all the operations were carried on in his name, and after the receivership was lifted this arrangement was continued. The auditors recommend that immediate steps be taken to restore the former status, and that the "net assets be taken over by some new financial entity." Being of the opinion that "the most satisfactory solution would appear to be in the creation of an entire new financial structure," the auditors suggest the "business trust" as a desirable form of organization for the colony. "The deed of trust describes the business of the association and the duties and rights of trustees and shareholders; the operative nature of the enterprise could be clearly stated therein."

The social benefits of the colony can not be measured. The satisfaction gained by living in an environment in direct contrast with that of the capitalistic order and participating in a social experiment whose avowed purpose is the advancement of the welfare of the whole group, thus doing away with the struggle of individuals, is an intangible thing which can not be gauged. As to this, the following, by Professor Gide, is apropos.

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[4] The Llano Cooperator of Mar. 28, 1931, states that during the winter of 1930–31, the colony has given shelter and food to "more than 360 dispossessed persons." It also states that this was "almost one and a half times more people than we had as the original group."

It must be admitted, then, that these Utopias meet one of the needs of mankind, or at least an aspiration toward a less individualistic kind of life than exists to-day.

If there was a single one of these societies living and flourishing to-day that would be enough, for in physical or chemical science a single successful experiment is enough to establish the truth of a law. A hundred unsuccessful experiments prove nothing against one that succeeds. If they have failed it is merely because circumstances have not been favorable, and the only conclusion to be drawn is that it is not easy to combine these favorable conditions.

Unfortunately we can not point at this moment to a single example of a really communist society which has really succeeded. But we have seen several which lasted a long time, some of them for over a century, and that is itself a proof that they are practicable. Are we, then, to expect them to be immortal? No, for how many business companies or commercial houses are there which can celebrate their centenary? Very few indeed. So why be astonished if out of two hundred communist societies that have been formed only two or three should be able to celebrate their hundredth birthday?

Membership of International Cooperative Alliance

ACCORDING to the Review of International Cooperation for February, 1931, the International Cooperative Alliance now includes in its membership the cooperative movement in 41 countries—an aggregate of 229,890 societies with more than 70,000,000 members. These societies do a combined annual business amounting to $17,610,718,038, have share capital of $959,999,486, and reserve funds of $548,558,635.

The Russian cooperative movement is by far the largest single member of the Alliance, having an annual business of $14,038,078,743, share capital of $310,839,726, and reserves of $362,120,582.

The membership of the 229,890 societies affiliated with the Alliance is divided, according to type of society, as follows:

	Members
Consumers' societies	48, 233, 541
Productive societies	136, 221
Agricultural societies	22, 403, 687

In addition there are 14,984,864 persons affiliated with 32,219 credit societies.

Cooperative People's Banks of Quebec

THE Province of Quebec has the distinction of being the first jurisdiction in North America to introduce cooperative credit societies. It was from the pattern of the Quebec people's banks that the credit unions of the United States were formed.

The Statistical Yearbook of Quebec carries, each year, data showing the development of these societies. The 1930 yearbook shows a steady increase in number of banks, membership, and loans granted each year from 1925 to 1929. Although the amount of loans granted rose each year from 1925 to 1928, it fell slightly from 1928 to 1929. In 1929, of the $4,249,650 granted in loans, $2,517,750 was on notes, $1,133,669 on mortgages, and $598,231 on debentures.

They had at the end of the year total assets of $11,463,557. The capital stock amounted to $1,850,542 and the reserves, surplus, and provident funds to $960,667.

The growth of the membership and business from 1925 to 1929 is shown in the table following.

DEVELOPMENT OF COOPERATIVE PEOPLE'S BANKS IN PROVINCE OF QUEBEC, 1925 TO 1929

Year	Number reporting	Membership	Number of depositors	Loans granted during year		Net gain
				Number	Amount	
1925	122	33,279	33,527	13,794	$3,919,961	$449,531
1926	154	36,298	37,343	15,843	4,496,956	468,034
1927	159	41,365	40,753	16,832	4,778,761	537,294
1928	168	41,374	40,568	17,403	5,047,769	571,664
1929	178	44,835	44,685	17,994	4,249,650	645,616

Persons Employed by British Cooperative Wholesale Society

DATA given in the People's Yearbook for 1931 show that in spite of the bad conditions of the past five years the cooperative movement of Great Britain in 1929 was employing 248,736 persons, or nearly 45,000 more than in 1925.

Of the wage earners employed by the cooperative movement in that country, more than 34,000 are working in the productive departments of the English Cooperative Wholesale Society. This society carries on manufactures in a wide variety of businesses, the value of the output of its productive and service departments reaching the sum of £30,948,060 ($150,608,734) in 1929. The following table shows the various productive activities of the society and the number of employees of each, at the end of 1929:

PERSONS EMPLOYED IN SPECIFIED MANUFACTURING PLANTS OF BRITISH COOPERATIVE WHOLESALE SOCIETY, 1929

Establishment	Number of establishments	Number of employees	Establishment	Number of establishments	Number of employees
Flour mills	8	1,625	Umbrella factory	1	34
Feed mills	3	60	Felling plants	2	223
Cracker and confectionery factories	2	1,331	Furniture factories	4	1,345
Butter and cheese factories	3	191	Iron works	1	173
Margarine factory	1	1,059	Tinplate works	1	76
Lard refinery	1	24	Bucket and fender works	1	170
Bacon factories	5	326	Cutlery works	1	8
Preserves factories	4	1,867	Bicycle and motor-cycle works	1	234
Vinegar and yeast factory	1	48	Scales factory	1	132
Tea and coffee factories	2	655	Jewelry factory	1	16
Cocoa and chocolate factory	1	494	Brush factories	2	299
Drugs and chemicals factories	2	1,263	Soap factories	3	1,823
Tobacco and cigar factory	1	736	Paint factories	1	46
Cannery	1	150	Saddlery and harness factory	1	9
Packing plant	1	203	Trunk, etc., factory	1	105
Milk distributing plants	2	170	Picture-framing plant	1	14
Cotton mills	2	597	Printing, bookbinding, etc., plants	5	2,419
Woolen mills	5	819	Oil mills	2	344
Hosiery mill	1	1,006	Sawmills	2	278
Rope and twine mill	1	150	Potteries	3	235
Clothing (including underclothing) factories	13	5,609	Glass-bottle factory	1	144
Corset factory	1	376	Motor-vehicle factory	1	38
Boot and shoe factories	11	4,056	Coal mine	1	730
Tanneries	2	119	Building, engineering, etc., plants	3	2,332
Bedding, quilts, etc., factory	1	101	Total	117	34,284
Hat and cap factory	1	20			

LABOR TURNOVER

Labor Turnover in American Factories, March, 1931

THE Bureau of Labor Statistics presents herewith the labor turnover rates for manufacturing as a whole and for eight separate manufacturing industries. The form of average used in computing the rates in the following tables is the weighted arithmetic mean.

Previous to January, 1931, the bureau had been using the unweighted median of company rates as the form of average for computing turnover rates. The averages for 1930 as presented in Tables 1 and 3 have been recomputed to present the arithmetic mean.

Table 2 shows the turnover rates for the months, June to December, 1929, inclusive, for industry as a whole, using the arithmetic mean as a form of average. The bureau has now recomputed the averages using the arithmetic mean as a basis for all months for which data have been received. Previous to June, 1929, labor turnover rates were compiled by the Metropolitan Life Insurance Co.

The form of average for presenting turnover rates was changed because the bureau considers that the arithmetic mean gives a more representative picture of actual conditions in industry than the median of company rates. In using the median, the small company had as much influence upon the rates as a large company. In using the arithmetic average, each company has an influence on the rate in proportion to the number of its employees. In computing the arithmetic mean, the number of quits, discharges, lay-offs and accessions actually occurring during the month in all plants reporting are added. The totals of these items are divided by the total average number on the company pay rolls during the month. This gives the monthly quit, discharge, lay-off, and accessions rates. The equivalent annual rates are obtained by multiplying the monthly rates by the number of times the days in the current month are contained in the 365 days in the year. Since the month of March has 31 days, the equivalent annual rate is obtained by multiplying the monthly rate by 11.77.

The indexes for manufacturing as a whole are compiled from reports made to the Bureau of Labor Statistics from representative establishments in over 75 industries, employing approximately 1,250,000 people. In the eight industries for which separate indexes are presented reports were received from representative plants employing approximately 25 per cent of the employees in such industries as shown by the Census of Manufactures of 1927.

In the automotive industry schedules are received from plants employing approximately 200,000 people; firms reporting for boots and shoes employ nearly 100,000 people; those for cotton manufacturing employ approximately 125,000; foundry and machine-shop firms reporting had nearly 175,000 people on their pay roll. The furniture industry is represented by firms employing about 40,000

people; the iron and steel industry by firms employing 225,000 people. The reports received from representative sawmills have approximately 65,000 employees on their pay rolls, while the plants reporting on slaughtering and meat packing show nearly 85,000 people.

Table 1 shows for all industries, the total separation rate subdivided into the quit, discharge, and lay-off rates together with the accession and net turnover rates presented both on a monthly and an equivalent annual basis.

TABLE 1.—AVERAGE LABOR TURNOVER RATES IN SELECTED FACTORIES IN 75 INDUSTRIES

A.—Monthly Rates

Month	Separation rates								Accession rate		Net turnover rate	
	Quit		Lay-off		Discharge		Total					
	1930	1931	1930	1931	1930	1931	1930	1931	1930	1931	1930	1931
January	1.85	0.74	2.70	1.95	0.54	0.19	5.09	2.88	3.95	2.97	3.95	2.88
February	1.60	.74	2.50	1.75	.62	.20	4.72	2.69	3.94	2.82	3.94	2.69
March	1.94	.94	2.83	1.75	.60	.26	5.37	2.95	4.15	3.67	4.15	2.95
April	2.11		2.57		.53		5.21		3.55		3.55	
May	2.01		2.68		.48		5.17		3.28		3.28	
June	1.85		3.00		.46		5.31		2.92		2.92	
July	1.35		4.17		.32		5.84		2.51		2.51	
August	1.40		3.99		.36		5.75		2.71		2.71	
September	1.50		3.14		.36		5.00		3.27		3.27	
October	1.20		2.88		.32		4.49		2.56		2.56	
November	.90		2.77		.24		3.91		2.05		2.05	
December	.84		2.74		.21		3.79		2.13		2.13	
Average	**1.55**		**3.00**		**.42**		**4.97**		**3.08**		**3.08**	

B.—Equivalent Annual Rates

January	21.8	8.7	31.8	23.0	6.4	2.2	60.0	33.9	46.5	35.0	46.5	33.9
February	20.9	9.6	32.6	22.8	8.0	2.6	61.5	35.0	51.4	36.8	51.4	35.0
March	22.8	11.1	33.3	20.6	7.1	3.1	63.2	34.8	48.8	43.2	48.8	34.8
April	25.7		31.3		6.5		63.5		43.2		43.2	
May	23.7		31.5		5.6		60.8		38.6		38.6	
June	22.5		36.5		5.6		64.6		35.5		35.5	
July	15.9		49.1		3.8		68.8		29.5		29.5	
August	16.5		47.0		4.2		67.7		31.9		31.9	
September	18.3		38.2		4.4		60.9		39.8		39.8	
October	15.2		33.9		3.8		52.9		30.1		30.1	
November	11.0		33.7		2.9		47.6		24.9		24.9	
December	9.9		32.2		2.5		44.6		25.1		25.1	
Average	**18.7**		**35.9**		**5.1**		**59.7**		**37.1**		**37.1**	

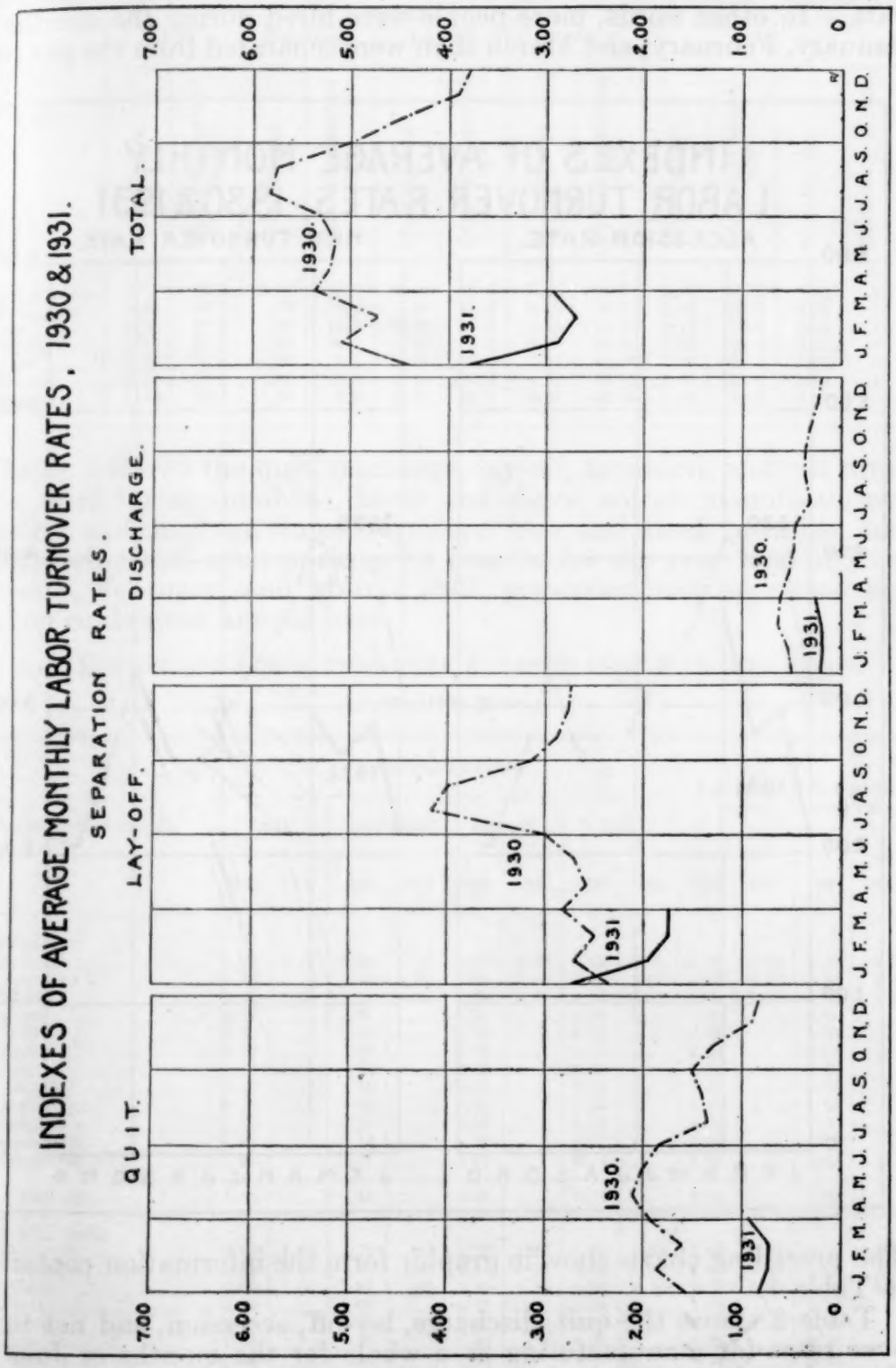
The March accession rate for manufacturing as a whole was 3.67 compared with a total separation rate of 2.95. This is the third consecutive month in which the accession rate was higher than the total separation rate.

Comparing the rates for March with those for February, there was an increase in the quit, discharge, and accession rates. The March lay-off rate was exactly the same as the February lay-off rate.

Comparing the March, 1931, figures with those for March, 1930, there was a marked decrease in the quit, discharge, and lay-off rates. The accession rate also declined slightly.

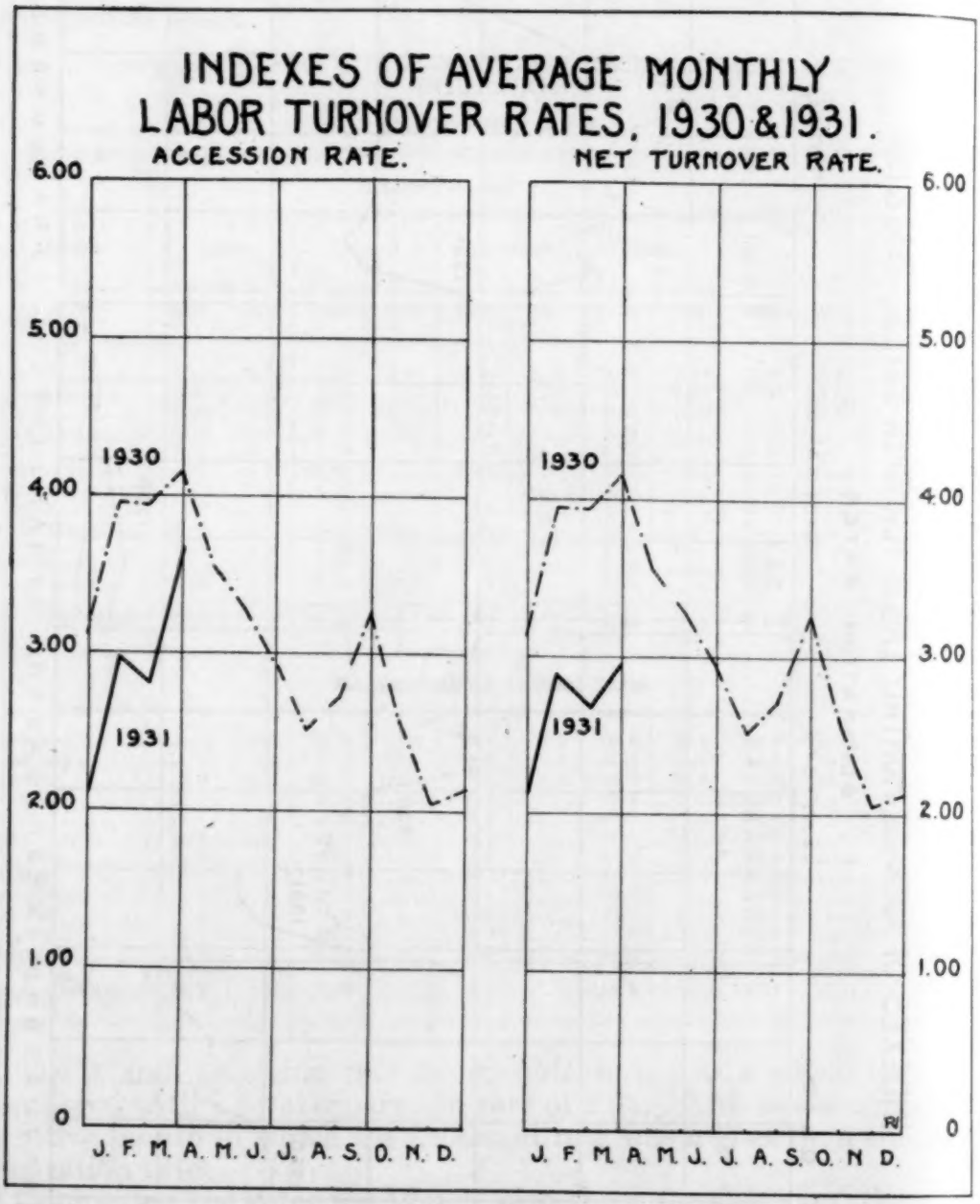
In addition to the quit, discharge, lay-off, total separation, and accession rates, the bureau presents the net turnover rate. The net turnover rate means the rate of replacement. It is the number of jobs that are vacated and filled per 100 employees. In a plant that is

increasing its forces, the net turnover rate is the same as the separation rate because while more people are hired than are separated from their jobs, the number hired above those leaving is due to expansion and



can not be justly charged to turnover. On the other hand, in a plant that is reducing its number of employees, the net turnover rate is the same as the accession rate, for while more people are separated from

the pay roll than are hired, the excess of separations over accessions is due to a reduction of force and therefore can not be logically charged as a turnover expense. For the third consecutive month the net turnover rate for manufacturing as a whole is the same as the separation rate. In other words, more people were hired during the months of January, February, and March than were separated from the pay roll.



The preceding charts show in graphic form the information contained in Table 1.

Table 2 shows the quit, discharge, lay-off, accession, and net turnover rates for manufacturing as a whole for the months of June to December, 1929. These averages have been recomputed to show the arithmetic average instead of the median of company rates.

TABLE 2.—AVERAGE LABOR TURNOVER RATES IN SELECTED FACTORIES IN 75 INDUSTRIES IN 1929

Month	Separation rates								Accession rate		Net turnover rate	
	Quit		Discharge		Lay-off		Total					
	Monthly rate	Equivalent annual rate	Monthly rate	Equivalent annual rate	Monthly rate	Equivalent annual rate	Monthly rate	Equivalent annual rate	Monthly rate	Equivalent annual rate	Monthly rate	Equivalent annual rate
June	4.51	54.9	0.86	10.4	2.14	26.0	7.51	91.3	7.53	91.6	7.51	91.3
July	3.65	43.0	.88	10.4	1.49	17.5	6.02	70.9	6.53	76.9	6.02	70.9
August	4.15	48.8	.87	10.2	1.49	17.5	6.51	76.5	6.12	72.0	6.12	72.0
September	4.70	57.2	.85	10.3	1.42	17.3	6.97	84.8	7.10	86.4	6.97	84.8
October	3.16	37.2	.69	8.1	3.06	36.0	6.91	81.3	5.27	62.0	5.27	62.0
November	2.27	27.6	.66	8.0	2.81	34.2	5.74	69.8	3.91	47.6	3.91	47.6
December	1.56	18.4	.50	5.9	2.35	27.7	4.41	52.0	3.13	36.8	3.13	36.8

Table 3 shows the quit, discharge, lay-off, accession, and net turnover rates for automobiles, boots and shoes, cotton manufacturing, foundry and machine shops, furniture, iron and steel, sawmills, and slaughtering and meat packing by months for the year 1930 and for January, February, and March, 1931, presented both on a monthly and an equivalent annual basis.

TABLE 3.—AVERAGE LABOR TURNOVER RATES IN SPECIFIED INDUSTRIES

A.—Monthly Rates

Industry and month	Separation rates								Accession rate		Net turnover rate	
	Quit		Discharge		Lay-off		Total					
	1930	1931	1930	1931	1930	1931	1930	1931	1930	1931	1930	1931
Automobiles:												
January	2.76	0.54	0.92	0.18	5.81	2.63	9.49	3.35	13.50	2.92	9.49	2.92
February	1.16	.74	.38	.21	2.31	1.71	3.85	2.66	4.74	4.12	3.85	2.66
March	1.81	1.09	.56	.39	2.04	1.71	4.41	3.19	6.92	7.76	4.41	3.19
April	2.21	------	.50	------	1.97	------	4.68	------	7.45	------	4.68	------
May	2.20	------	.50	------	5.59	------	8.29	------	3.98	------	3.98	------
June	1.59	------	.39	------	5.90	------	7.88	------	2.34	------	2.34	------
July	1.14	------	.24	------	9.48	------	10.86	------	2.78	------	2.78	------
August	1.23	------	.38	------	7.66	------	9.27	------	3.69	------	3.69	------
September	1.29	------	.33	------	7.42	------	9.04	------	3.83	------	3.83	------
October	1.19	------	.25	------	5.39	------	6.83	------	4.02	------	4.02	------
November	.81	------	.16	------	3.80	------	4.77	------	5.95	------	4.77	------
December	.88	------	.17	------	3.69	------	4.74	------	3.43	------	3.43	------
Average	1.52	------	.40	------	5.09	------	7.01	------	5.22	------	5.22	------
Boots and shoes:												
January	1.97	1.23	.78	.37	1.27	1.88	4.02	3.48	5.97	4.48	4.02	3.48
February	1.93	1.27	.70	.31	1.37	1.23	4.00	2.81	3.09	5.88	3.09	2.81
March	2.00	1.58	.65	.50	1.34	1.16	3.99	3.24	3.18	4.92	3.18	3.24
April	2.48	------	.68	------	2.13	------	5.29	------	2.76	------	2.76	------
May	2.06	------	.53	------	2.47	------	5.06	------	3.19	------	3.19	------
June	1.94	------	.47	------	1.82	------	4.23	------	3.78	------	3.78	------
July	2.04	------	.57	------	1.76	------	4.37	------	4.74	------	4.37	------
August	2.19	------	.73	------	2.84	------	5.76	------	4.08	------	4.08	------
September	2.01	------	.51	------	2.78	------	5.30	------	2.99	------	2.99	------
October	1.71	------	.47	------	2.73	------	4.91	------	2.05	------	2.05	------
November	1.00	------	.27	------	4.38	------	5.65	------	2.41	------	2.41	------
December	1.03	------	.24	------	3.88	------	5.15	------	3.66	------	3.66	------
Average	1.86	------	.55	------	2.40	------	4.81	------	3.49	------	3.30	------

TABLE 3.—AVERAGE LABOR TURNOVER RATES IN SPECIFIED INDUSTRIES—Con.

A.—Monthly Rates—Continued

Industry and month	Separation rates								Accession rate		Net turnover rate	
	Quit		Discharge		Lay-off		Total					
	1930	1931	1930	1931	1930	1931	1930	1931	1930	1931	1930	1931
Cotton manufacturing:												
January	2.07	1.00	0.65	0.40	2.16	2.60	4.88	4.00	4.50	3.57	4.50	3.57
February	1.98	1.00	.60	.34	1.92	1.87	4.50	3.21	3.33	3.91	3.33	3.21
March	2.27	1.36	.69	.36	2.20	2.00	5.16	3.72	4.17	4.47	4.17	3.72
April	2.40	------	.68	------	2.23	------	5.31	------	4.27	------	4.27	------
May	2.36	------	.55	------	2.07	------	4.98	------	3.95	------	3.95	------
June	2.06	------	.58	------	2.17	------	4.81	------	3.25	------	3.25	------
July	1.91	------	.55	------	3.34	------	5.80	------	2.47	------	2.47	------
August	1.58	------	.46	------	3.58	------	5.62	------	2.72	------	2.72	------
September	1.88	------	.46	------	2.44	------	4.78	------	4.58	------	4.58	------
October	1.41	------	.48	------	2.09	------	3.98	------	4.34	------	3.98	------
November	1.22	------	.35	------	2.18	------	3.75	------	2.93	------	2.93	------
December	.58	------	.24	------	1.92	------	2.74	------	1.46	------	1.46	------
Average	1.81	------	.52	------	2.36	------	4.69	------	3.50	------	3.47	------
Foundries and machine shops:												
January	------	.52	------	.22	------	2.32	------	3.06	------	2.93	------	2.93
February	1.36	.55	.80	.22	2.03	2.10	4.19	2.87	4.39	2.96	4.19	2.87
March	1.88	.90	.88	.25	3.24	2.72	6.00	3.87	4.63	3.38	4.63	3.38
April	1.88	------	.80	------	2.87	------	5.55	------	3.95	------	3.95	------
May	1.87	------	.79	------	4.12	------	6.78	------	3.76	------	3.76	------
June	1.29	------	.54	------	4.52	------	6.35	------	3.05	------	3.05	------
July	1.11	------	.43	------	4.58	------	6.12	------	2.26	------	2.26	------
August	1.01	------	.45	------	4.08	------	5.54	------	2.56	------	2.56	------
September	1.07	------	.44	------	3.82	------	5.33	------	2.45	------	2.45	------
October	.85	------	.47	------	4.01	------	5.33	------	2.27	------	2.27	------
November	.66	------	.22	------	2.87	------	3.75	------	1.85	------	1.85	------
December	.55	------	.26	------	3.10	------	3.91	------	2.05	------	2.05	------
Average	1.23	------	.55	------	3.57	------	5.35	------	3.02	------	3.02	------
Furniture:												
January	------	.55	------	.25	------	4.84	------	5.64	------	5.24	------	5.24
February	------	.57	------	.34	------	3.86	------	4.77	------	5.51	------	4.77
March	------	.80	------	.37	------	4.52	------	5.69	------	4.78	------	4.78
April	1.73	------	.64	------	4.38	------	6.75	------	3.34	------	3.34	------
May	1.26	------	.52	------	4.39	------	6.17	------	2.87	------	2.87	------
June	1.44	------	.41	------	4.33	------	6.18	------	3.82	------	3.82	------
July	1.21	------	.40	------	4.50	------	6.11	------	5.09	------	5.09	------
August	1.18	------	.41	------	3.45	------	5.04	------	5.34	------	5.04	------
September	1.09	------	.46	------	3.30	------	4.85	------	7.07	------	4.85	------
October	1.03	------	.45	------	3.61	------	5.09	------	3.72	------	3.72	------
November	.99	------	.29	------	5.92	------	7.20	------	2.48	------	2.48	------
December	.68	------	.35	------	6.66	------	7.69	------	2.35	------	2.35	------
Average	1.18	------	.44	------	4.50	------	6.12	------	4.01	------	4.01	------
Iron and steel:												
January	1.81	.71	.45	.09	1.24	1.36	3.50	2.16	5.52	2.52	3.50	2.16
February	1.91	.72	.34	.15	1.15	1.03	3.40	1.90	5.09	2.24	3.40	1.90
March	1.91	.71	.45	.12	1.22	1.38	3.58	2.21	4.06	2.03	3.58	2.03
April	2.26	------	.42	------	1.32	------	4.00	------	3.88	------	3.88	------
May	2.13	------	.40	------	1.71	------	4.24	------	3.25	------	3.25	------
June	1.87	------	.49	------	2.25	------	4.61	------	2.56	------	2.56	------
July	1.54	------	.24	------	2.29	------	4.07	------	2.27	------	2.27	------
August	1.61	------	.26	------	2.05	------	3.92	------	1.91	------	1.91	------
September	1.45	------	.22	------	2.16	------	3.83	------	2.32	------	2.32	------
October	1.13	------	.20	------	2.25	------	3.58	------	1.74	------	1.74	------
November	1.11	------	.13	------	1.95	------	3.19	------	1.31	------	1.31	------
December	.82	------	.10	------	2.23	------	3.15	------	1.40	------	1.40	------
Average	1.63	------	.31	------	1.82	------	3.76	------	2.94	------	2.94	------
Sawmills:												
January	3.80	.97	1.18	.43	4.52	8.02	9.50	9.42	9.39	9.99	9.39	9.42
February	3.39	1.22	1.37	.50	3.99	4.56	8.75	6.28	9.11	7.44	8.75	6.28
March	3.89	1.74	1.47	.51	3.54	4.56	8.90	6.81	7.91	7.07	7.91	6.81
April	4.28	------	.92	------	4.97	------	10.17	------	9.66	------	9.66	------
May	3.51	------	1.35	------	8.10	------	12.96	------	10.09	------	10.09	------
June	2.93	------	.96	------	5.35	------	9.24	------	5.85	------	5.85	------
July	2.68	------	1.07	------	6.98	------	10.73	------	6.17	------	6.17	------
August	3.01	------	.93	------	6.09	------	10.03	------	6.71	------	6.71	------
September	2.99	------	.95	------	7.64	------	11.58	------	6.93	------	6.93	------
October	2.26	------	.72	------	6.58	------	9.56	------	8.32	------	8.32	------
November	1.93	------	.83	------	7.23	------	9.99	------	4.96	------	4.96	------
December	1.39	------	.93	------	7.42	------	9.74	------	4.51	------	4.51	------
Average	3.01	------	1.06	------	6.03	------	10.10	------	7.47	------	7.47	------

TABLE 3.—AVERAGE LABOR TURNOVER RATES IN SPECIFIED INDUSTRIES—Con.

A.—Monthly Rates—Continued

Industry and month	Separation rates								Accession rate		Net turnover rate	
	Quit		Discharge		Lay-off		Total					
	1930	1931	1930	1931	1930	1931	1930	1931	1930	1931	1930	1931
Slaughtering and meat packing:												
January	2.32	1.29	0.91	0.61	6.68	4.40	9.91	6.30	10.02	9.50	9.91	6.30
February	2.37	1.56	.96	.68	7.70	6.48	11.03	8.72	7.39	5.02	7.39	5.02
March	2.49	1.41	.86	.37	7.51	6.88	10.86	8.66	5.23	5.19	5.23	5.19
April	2.91	------	.75	------	4.47	------	8.13	------	8.47	------	8.13	------
May	2.84	------	.79	------	4.14	------	7.77	------	9.01	------	7.77	------
June	2.72	------	.88	------	4.59	------	8.19	------	10.34	------	8.19	------
July	2.08	------	.79	------	5.34	------	8.21	------	6.92	------	6.92	------
August	2.09	------	.72	------	5.14	------	7.95	------	6.34	------	6.34	------
September	2.26	------	.65	------	3.79	------	6.70	------	7.33	------	6.70	------
October	1.70	------	.73	------	4.67	------	7.10	------	7.62	------	7.10	------
November	1.12	------	.56	------	4.80	------	6.48	------	7.30	------	6.48	------
December	1.69	------	.57	------	5.59	------	7.85	------	6.24	------	6.24	------
Average	2.22	------	.76	------	5.37	------	8.35	------	7.68	------	7.68	------

B.—Equivalent Annual Rates

Automobiles:												
January	32.5	6.4	10.8	2.1	68.4	31.0	111.7	39.5	158.9	34.4	111.7	34.4
February	15.1	9.6	5.0	2.7	30.1	22.3	50.2	34.6	61.8	53.7	50.2	34.6
March	21.3	12.8	6.6	4.6	24.0	20.1	51.9	37.5	81.4	91.3	51.9	37.5
April	26.9	------	6.1	------	24.0	------	57.0	------	90.7	------	57.0	------
May	25.9	------	5.9	------	65.8	------	97.6	------	46.8	------	46.8	------
June	19.4	------	4.7	------	71.8	------	95.9	------	28.5	------	28.5	------
July	13.4	------	2.8	------	111.6	------	127.8	------	32.7	------	32.7	------
August	14.5	------	4.5	------	90.2	------	109.2	------	43.4	------	43.4	------
September	15.7	------	4.0	------	90.3	------	110.0	------	46.6	------	46.6	------
October	14.0	------	2.9	------	63.4	------	80.3	------	47.3	------	47.3	------
November	9.9	------	1.9	------	46.2	------	58.0	------	72.4	------	58.0	------
December	10.4	------	2.0	------	43.4	------	55.8	------	40.4	------	40.4	------
Average	18.3	------	4.8	------	60.8	------	83.8	------	62.6	------	62.6	------
Boots and shoes:												
January	23.2	14.5	9.2	4.4	14.9	22.1	47.3	41.0	70.3	52.7	47.3	41.0
February	25.2	16.6	9.1	4.0	17.9	16.0	52.2	36.6	40.3	76.7	40.3	36.6
March	23.5	18.6	7.7	5.9	15.8	13.7	47.0	38.2	37.4	57.9	37.4	38.2
April	30.2	------	8.3	------	25.9	------	64.4	------	33.6	------	33.6	------
May	24.2	------	6.2	------	29.1	------	59.5	------	37.5	------	37.5	------
June	23.6	------	5.7	------	22.1	------	51.4	------	46.0	------	46.0	------
July	24.0	------	6.7	------	20.7	------	51.4	------	55.8	------	51.4	------
August	25.8	------	8.6	------	33.4	------	67.8	------	48.0	------	48.0	------
September	24.5	------	6.2	------	33.8	------	64.5	------	36.4	------	36.4	------
October	20.1	------	5.5	------	32.1	------	57.7	------	24.1	------	24.1	------
November	12.2	------	3.3	------	53.3	------	68.8	------	29.3	------	29.3	------
December	12.1	------	2.8	------	45.7	------	60.6	------	43.1	------	43.1	------
Average	22.4	------	6.6	------	28.7	------	57.7	------	41.8	------	41.8	------
Cotton manufacturing:												
January	24.4	11.8	7.7	4.7	25.4	30.6	57.5	47.1	53.0	42.0	53.0	42.0
February	25.8	13.0	7.8	4.4	25.0	24.4	58.6	41.8	43.4	51.0	43.4	41.8
March	26.7	16.0	8.1	4.2	25.9	23.5	60.7	43.7	49.1	52.6	49.1	43.7
April	29.2	------	8.3	------	27.1	------	64.6	------	52.0	------	52.0	------
May	27.8	------	6.5	------	24.4	------	58.7	------	46.5	------	46.5	------
June	25.1	------	7.1	------	26.4	------	58.6	------	39.6	------	39.6	------
July	22.5	------	6.5	------	39.3	------	68.3	------	29.1	------	29.1	------
August	18.6	------	5.4	------	42.1	------	66.1	------	32.0	------	32.0	------
September	22.9	------	5.6	------	29.7	------	58.2	------	55.7	------	55.7	------
October	16.6	------	5.6	------	24.6	------	46.8	------	51.1	------	46.8	------
November	14.8	------	4.3	------	26.5	------	45.6	------	35.7	------	35.7	------
December	6.8	------	2.8	------	22.6	------	32.2	------	17.2	------	17.2	------
Average	21.8	------	6.3	------	28.3	------	56.3	------	42.0	------	41.7	------
Foundries and machine shops:												
January	------	6.1	------	2.6	------	27.3	------	36.0	------	34.5	------	35.5
February	17.7	7.2	10.4	2.9	26.5	27.4	54.6	37.5	57.2	38.6	54.6	37.5
March	22.1	10.6	10.4	2.9	38.1	32.0	70.6	45.5	54.5	39.8	54.5	39.8
April	22.9	------	9.7	------	34.9	------	67.5	------	48.1	------	48.1	------
May	22.0	------	9.3	------	48.5	------	79.8	------	44.3	------	44.3	------
June	15.7	------	6.6	------	55.0	------	77.3	------	37.1	------	37.1	------

TABLE 3.—AVERAGE LABOR TURNOVER RATES IN SPECIFIED INDUSTRIES—Con.

B.—Equivalent Annual Rates—Continued

Industry and month	Separation rates								Accession rate		Net turnover rate	
	Quit		Discharge		Lay-off		Total					
	1930	1931	1930	1931	1930	1931	1930	1931	1930	1931	1930	1931
Foundries and machine shops—Continued.												
July	13.1	------	5.1	------	53.9	------	72.1	------	26.6	------	26.6	------
August	11.9	------	5.3	------	48.0	------	65.2	------	30.1	------	30.1	------
September	13.0	------	5.4	------	46.5	------	64.9	------	29.8	------	29.8	------
October	10.0	------	5.5	------	47.2	------	62.7	------	26.7	------	26.7	------
November	8.0	------	2.7	------	34.9	------	45.6	------	22.5	------	22.5	------
December	6.5	------	3.1	------	36.5	------	46.1	------	24.1	------	24.1	------
Average	14.8	------	6.7	------	42.7	------	64.2	------	36.5	------	36.5	------
Furniture:												
January	------	6.5	------	2.9	------	57.0	------	66.4	------	61.7	------	61.7
February	------	7.4	------	4.4	------	50.3	------	62.1	------	71.9	------	62.1
March	------	9.4	------	4.4	------	53.2	------	67.0	------	56.3	------	56.3
April	21.1	------	7.8	------	53.3	------	82.2	------	40.6	------	40.6	------
May	14.8	------	6.1	------	51.6	------	72.5	------	33.8	------	33.8	------
June	17.5	------	5.0	------	52.7	------	75.2	------	46.5	------	46.5	------
July	14.2	------	4.7	------	53.0	------	71.9	------	59.9	------	59.9	------
August	13.9	------	4.8	------	40.6	------	59.3	------	62.9	------	59.3	------
September	13.3	------	5.6	------	40.2	------	59.1	------	86.0	------	59.1	------
October	12.1	------	5.3	------	42.5	------	59.9	------	43.8	------	43.8	------
November	12.0	------	3.5	------	72.0	------	87.5	------	30.2	------	30.2	------
December	8.0	------	4.1	------	78.4	------	90.5	------	27.7	------	27.7	------
Average	14.1	------	5.2	------	53.8	------	73.1	------	47.9	------	47.9	------
Iron and steel:												
January	21.3	8.4	5.3	1.1	14.6	16.0	41.2	25.5	65.0	29.7	41.2	25.5
February	24.9	9.4	4.4	2.0	15.0	13.4	44.3	24.8	66.4	29.2	44.3	24.8
March	22.5	8.4	5.3	1.4	14.4	16.2	42.2	26.0	47.8	23.9	42.2	23.9
April	27.5	------	5.1	------	16.1	------	48.7	------	47.2	------	47.2	------
May	25.1	------	4.7	------	20.1	------	49.9	------	38.3	------	38.3	------
June	22.8	------	6.0	------	27.4	------	56.2	------	31.2	------	31.2	------
July	18.1	------	2.8	------	27.0	------	47.9	------	26.7	------	26.7	------
August	18.9	------	3.1	------	24.1	------	46.1	------	22.5	------	22.5	------
September	17.6	------	2.7	------	26.3	------	46.6	------	28.2	------	28.2	------
October	13.3	------	2.4	------	26.5	------	42.2	------	20.5	------	20.5	------
November	13.5	------	1.6	------	23.7	------	38.8	------	15.9	------	15.9	------
December	9.7	------	1.2	------	26.2	------	37.1	------	16.5	------	16.5	------
Average	19.6	------	3.7	------	21.8	------	45.1	------	35.5	------	35.5	------
Sawmills:												
January	44.7	11.4	13.9	5.1	53.2	94.4	110.8	111.9	110.5	117.6	110.5	110.9
February	44.2	15.9	17.9	6.5	52.0	59.5	114.1	81.9	118.8	97.0	114.1	81.9
March	45.8	20.5	17.3	6.0	41.7	53.7	104.8	80.2	93.1	83.2	93.1	80.2
April	52.1	------	11.2	------	60.5	------	123.8	------	117.6	------	117.6	------
May	41.3	------	15.9	------	95.3	------	152.3	------	118.8	------	118.8	------
June	35.7	------	11.7	------	65.1	------	112.5	------	71.2	------	71.2	------
July	31.5	------	12.6	------	82.2	------	126.3	------	72.6	------	72.6	------
August	35.4	------	10.9	------	71.7	------	118.0	------	79.0	------	79.0	------
September	36.4	------	11.6	------	93.0	------	141.0	------	84.3	------	84.3	------
October	26.6	------	8.5	------	77.4	------	112.5	------	97.9	------	97.9	------
November	23.5	------	10.1	------	88.0	------	121.6	------	60.4	------	60.4	------
December	16.4	------	10.9	------	87.3	------	114.6	------	53.1	------	53.1	------
Average	36.1	------	12.7	------	72.3	------	121.1	------	89.8	------	89.8	------
Slaughtering and meat packing:												
January	27.3	15.2	10.7	7.2	78.6	51.8	116.6	74.2	117.9	111.8	116.6	74.2
February	30.9	20.3	12.5	8.9	100.4	84.5	143.8	113.7	96.4	65.5	96.4	65.5
March	29.3	16.6	10.1	4.4	88.4	81.0	127.8	102.0	61.6	61.1	61.6	61.1
April	35.4	------	9.1	------	54.4	------	98.9	------	103.1	------	98.9	------
May	33.4	------	9.3	------	48.7	------	91.4	------	106.0	------	91.4	------
June	33.1	------	10.7	------	55.9	------	99.7	------	125.8	------	99.7	------
July	24.5	------	9.3	------	62.9	------	96.7	------	81.4	------	81.4	------
August	24.6	------	8.5	------	60.5	------	93.6	------	74.6	------	74.6	------
September	27.5	------	7.9	------	46.1	------	81.5	------	89.2	------	81.5	------
October	20.0	------	8.6	------	55.0	------	83.6	------	89.7	------	83.6	------
November	13.6	------	6.8	------	58.4	------	78.8	------	88.8	------	78.8	------
December	19.9	------	6.7	------	65.8	------	92.4	------	73.4	------	73.4	------
Average	26.6	------	9.2	------	64.6	------	100.4	------	92.3	------	92.3	------

HOUSING

Building Permits in Principal Cities, March, 1931

THE Bureau of Labor Statistics has received building permit reports from 347 identical cities having a population of 25,000 or over, for the months of February and March, 1931, and from 297 identical cities for the months of March, 1930, and March, 1931.

The cost figures as shown in the tables below apply to the cost of the buildings as estimated by the prospective builders in applying for their permits to build. No land costs are included. Only building projects within the corporate limits of the cities enumerated are shown.

The States of Illinois, Massachusetts, New Jersey, New York, and Pennsylvania, through their departments of labor, are cooperating with the United States Bureau of Labor Statistics in the collection of these data.

Table 1 shows the estimated costs of new residential buildings, of new nonresidential buildings, and of total building operations in 347 cities of the United States by geographic divisions.

TABLE 1.—ESTIMATED COST OF NEW BUILDINGS IN 347 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN FEBRUARY AND MARCH, 1931, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings				New nonresidential buildings, estimated cost		Total construction (including alterations and repairs), estimated cost	
	Estimated cost		Families provided for in new dwellings					
	February, 1931	March, 1931	February, 1931	March, 1931	February, 1931	March, 1931	February, 1931	March, 1931
New England	$2,006,340	$3,187,200	311	625	$2,799,456	$7,942,389	$5,814,578	$12,847,102
Middle Atlantic	14,237,482	23,870,571	3,407	5,176	16,352,272	33,608,355	36,571,143	66,191,596
East North Central	5,225,300	6,854,527	1,071	1,387	12,496,153	22,231,977	22,143,847	32,303,884
West North Central	1,798,020	2,620,348	452	668	2,861,229	3,251,530	5,200,466	7,516,027
South Atlantic	5,652,821	3,805,043	1,039	752	2,632,773	3,299,425	10,165,222	8,624,939
South Central	2,816,926	2,977,530	983	994	4,890,168	5,502,663	8,692,405	9,528,562
Mountain and Pacific	5,914,733	7,287,427	1,637	2,192	5,138,872	6,480,092	12,940,860	15,858,599
Total	37,651,622	50,602,646	8,900	11,794	47,170,923	82,316,431	101,528,521	152,870,709
Per cent of change	----------	+34.4	-------	+32.5	----------	+74.5	----------	+50.6

There was an increase of 50.6 per cent in the estimated cost of the total building operations for which permits were issued during the month of March, 1931, as compared with February, 1931. New residential buildings increased 34.4 per cent in indicated expenditures and new nonresidential buildings 74.5 per cent. Permits issued during March, 1931, in these 347 cities show an estimated cost for total building operations of $152,870,709. In these cities, 11,794 families were provided with dwelling places in the new buildings for which permits were issued during the month of March. This is an increase of 32.5 per cent over the new dwelling units provided by February permits.

Six of the seven geographic divisions show increases in the estimated cost of residential building. These increases ranged from 5.7

per cent in the South Central States to 67.7 per cent in the Middle Atlantic States. The South Atlantic division showed a decrease in new residential buildings of 32.7 per cent.

All geographic divisions registered an increase in indicated expenditures for new nonresidential buildings. These increases ranged from 12.5 per cent in the South Central States to 183.7 per cent in the New England States.

Increases in indicated expenditures for total building operations were shown in all geographic divisions except the South Atlantic States. The South Atlantic States registered a decrease of 15.2 per cent in the estimated cost of building operations, comparing March permits with February permits. Of the seven districts showing increases, the New England States showed the highest percentage of increase, 120.9; the South Central States showed the lowest percentage of increase, 9.6.

All districts except the South Atlantic States showed an increase in the number of housing units provided. The increase ranged from 1.1 per cent in the South Central States to 101.0 per cent in the New England States. The South Atlantic States registered a decrease of 27.6 in the number of new dwelling units provided.

Table 2 shows the estimated cost of additions, alterations, and repairs as shown by permits issued, together with the percentage of increase or decrease in March, 1931, as compared with February, 1931, in 347 identical cities by geographic divisions.

TABLE 2.—ESTIMATED COST OF ADDITIONS, ALTERATIONS, AND REPAIRS IN 347 IDENTICAL CITIES AS SHOWN BY PERMITS ISSUED IN FEBRUARY AND MARCH, 1931, BY GEOGRAPHICAL DIVISIONS

Geographic division	Estimated cost		Per cent of increase or decrease in March compared with February
	February, 1931	March, 1931	
New England	$1,008,782	$1,717,513	+70.3
Middle Atlantic	5,981,389	8,712,670	+45.7
East North Central	4,422,394	3,217,380	−27.2
West North Central	541,217	1,644,149	+203.8
South Atlantic	1,879,628	1,520,471	−19.1
South Central	985,311	1,048,369	+6.4
Mountain and Pacific	1,887,255	2,091,080	+10.8
Total	16,705,976	19,951,632	+19.4

Permits issued for alterations and repairs in these 347 cities showed an increase in estimated cost of 19.4 per cent comparing permits issued in March with those issued in February. The increases were shown in five of the geographic divisions, the smallest increase being in the South Central States where the estimated cost of repairs for which permits were issued during March was only 6.4 per cent higher than the repairs for which permits were issued during February. The highest increase was in the West North Central division. March repairs in this division cost 203.8 per cent more than February repairs. Two divisions, the South Atlantic and East North Central, showed a decrease in indicated expenditure for repairs and alterations to existing buildings.

Table 3 shows the index numbers of families provided for and the index numbers of indicated expenditures for new residential buildings, for new nonresidential buildings, for additions, alterations, and repairs,

and for total building operations. These indexes are worked on the chain system with the monthly average of 1929 equaling 100.

TABLE 3.—INDEX NUMBERS OF FAMILIES PROVIDED FOR AND OF THE ESTIMATED COST OF BUILDING OPERATIONS AS SHOWN BY PERMITS ISSUED IN PRINCIPAL CITIES OF THE UNITED STATES, MARCH, 1930, TO MARCH, 1931

[Monthly average, 1929=100]

Month	Families provided for	Estimated costs of—			
		New residential buildings	New nonresidential buildings	Additions, alterations, and repairs	Total building operations
1930					
March	57.1	47.2	87.1	77.5	66.4
April	62.0	51.0	100.1	81.8	73.8
May	59.6	48.5	90.7	84.5	69.3
June	54.4	45.1	82.5	74.6	63.3
July	49.9	44.1	86.7	77.4	64.8
August	48.7	43.4	67.2	58.6	54.4
September	51.3	44.4	73.8	64.2	58.2
October	58.3	44.9	53.5	58.1	49.7
November	52.9	42.5	54.4	37.8	46.3
December	45.0	37.6	64.3	53.5	50.1
1931					
January	39.1	30.8	43.4	55.5	38.9
February	40.3	30.3	43.8	48.6	37.9
March	53.4	40.7	76.4	58.0	57.1

The index number of total building operations for the month of March, 1931, stood at 57.1, which is higher than for any month since September, 1930. The March, 1931, index number for new nonresidential buildings was higher than for any month since July, 1930. The index numbers of families provided for, of new residential buildings, and of additions, alterations, and repairs were all much higher than for either of the preceding months in 1931, but were lower than for March, 1930.

The chart on page 125 shows in graphic form the trend of estimated costs of new residential buildings, of new nonresidential buildings, and of total building operations.

Table 4 shows the dollar value of contracts let for public buildings by the different agencies of the United States Government during the months of February, 1931, and March, 1931, by geographic divisions.

TABLE 4.—CONTRACTS LET FOR PUBLIC BUILDINGS BY DIFFERENT DIVISIONS OF THE UNITED STATES GOVERNMENT DURING FEBRUARY AND MARCH, 1931, BY GEOGRAPHIC DIVISIONS

Geographic division	February, 1931	March, 1931
New England	$107,536	$5,978,472
Middle Atlantic	113,230	2,121,013
East North Central	902,279	682,031
West North Central	114,600	201,414
South Atlantic	1,389,117	1,602,095
South Central	493,817	2,438,675
Mountain and Pacific	313,086	1,460,872
Total	3,433,665	14,484,572

Contracts were let for United States Government buildings during March, 1931, to cost $14,484,572. This was nearly five times as

great as the total value of the contracts let during the month of February. The contracts were let by the following Federal agencies: United States Capitol Architect; Office of the Quartermaster General, War Department; Bureau of Yards and Docks, Navy Department; Supervising Architect, Treasury Department; and the United States Veterans' Bureau.

Whenever a contract is let by the United States Government for a building in a city having a population of 25,000 or over the cost is included in the estimated costs as shown in the cities enumerated in Table 8.

Table 5 shows the dollar value of contracts awarded by the different State governments for public buildings during the months of February, 1931, and March, 1931, by geographic divisions.

TABLE 5.—CONTRACTS AWARDED FOR PUBLIC BUILDINGS BY THE DIFFERENT STATE GOVERNMENTS DURING FEBRUARY AND MARCH, 1931, BY GEOGRAPHIC DIVISIONS

Geographic division	February, 1931	March, 1931
New England	$101,905	$1,615,483
Middle Atlantic	1,045,915	1,495,844
East North Central	222,304	597,836
West North Central	30,291	58,099
South Atlantic	154,190	598,480
South Central	4,120	900
Mountain and Pacific	574,237	398,508
Total	2,132,962	4,765,150

Contracts awarded by State governments during the month of March, 1931, totaled $4,765,150, more than twice the total value of contracts let during the month of February.

Whenever the contract is let by a State government for a building in a city having a population of 25,000 or over, the cost is included in the estimated cost as shown in the cities enumerated in Table 8.

Table 6 shows the estimated cost of new residential buildings, new nonresidential buildings, and of total building operations in 297 identical cities having a population of 25,000 or over, for March, 1930, and March, 1931, by geographic divisions.

TABLE 6.—ESTIMATED COST OF NEW BUILDINGS IN 297 IDENTICAL CITIES AS SHOWN BY PERMITS ISSUED IN MARCH, 1930, AND MARCH, 1931, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings				New nonresidential buildings, estimated cost		Total construction (including alterations and repairs), estimated cost	
	Estimated cost		Families provided for in new dwellings					
	March, 1930	March, 1931	March, 1930	March, 1931	March, 1930	March, 1931	March, 1930	March, 1931
New England	$4,404,275	$3,134,400	680	615	$5,286,154	$7,888,114	$13,189,312	$12,719,756
Middle Atlantic	15,044,895	23,659,971	3,344	5,138	33,678,748	33,582,530	57,169,936	65,877,938
East North Central	15,224,029	6,199,927	2,114	1,269	13,869,456	21,497,587	33,442,961	30,804,372
West North Central	3,337,320	2,362,098	686	630	3,908,624	3,231,295	8,955,828	7,195,510
South Atlantic	4,925,605	3,758,834	843	740	12,728,683	3,210,075	20,718,974	8,466,911
South Central	5,176,627	2,773,785	1,444	915	6,857,751	5,464,208	13,472,539	9,208,659
Mountain and Pacific	8,700,345	6,576,552	2,753	1,996	9,203,398	6,185,748	21,089,278	14,773,897
Total	56,813,096	48,465,567	11,864	11,303	85,532,814	81,059,557	168,038,828	149,047,043
Per cent of change		−14.7		−4.7		−5.2		−11.3

Permits issued in the 297 identical cities for which reports were received for both March, 1930, and March, 1931, show a decrease of 11.3 per cent in the estimated cost of total building operations in March, 1931, as compared with March, 1930; a decrease of 14.7 per cent in indicated expenditures for new residential buildings; and a decrease of 5.2 per cent in the indicated expenditure for new nonresidential buildings. The number of family dwelling units provided for in new buildings decreased 4.7 per cent.

An increase in the estimated cost of total building operations, comparing March, 1931, with the corresponding month of a year ago, was shown in the Middle Atlantic States. All other geographic divisions showed decreases.

Comparing March, 1931, permits with March, 1930, permits for new residential buildings, decreases were shown in all geographic divisions except the Middle Atlantic States.

Indicated expenditures for new nonresidential buildings registered increases in the New England States and the East North Central States; decreases were registered in each of the other five geographic divisions.

Six of the geographic divisions provided fewer dwelling units during March, 1931, than during March, 1930.

Table 7 shows the estimated cost of additions, alterations, and repairs as shown by permits issued, together with the percentage of increase or decrease in March, 1931, as compared with March, 1930.

TABLE 7.—ESTIMATED COST OF ADDITIONS, ALTERATIONS, AND REPAIRS IN 297 IDENTICAL CITIES AS SHOWN BY PERMITS ISSUED IN MARCH, 1930, AND MARCH, 1931, BY GEOGRAPHIC DIVISIONS

Geographic division	Estimated cost		Per cent of increase or decrease in March, 1931, compared with March, 1930
	March, 1930	March, 1931	
New England	$3,498,883	$1,697,242	−51.5
Middle Atlantic	8,446,293	8,635,437	+2.2
East North Central	4,349,476	3,106,858	−28.6
West North Central	1,709,884	1,602,117	−6.3
South Atlantic	3,064,686	1,498,002	−51.1
South Central	1,438,161	970,666	−32.5
Mountain and Pacific	3,185,535	2,011,597	−36.9
Total	25,692,918	19,521,919	−24.0

Projected expenditures for additions, alterations, and repairs decreased 24.0 per cent comparing permits issued during March, 1931, with those issued during March, 1930.

Decreases were shown in six of the seven geographic divisions, ranging from 6.3 per cent in the West North Central States to 51.5 per cent in the New England States. An increase in estimated expenditure for repairs of 2.2 per cent was shown in the Middle Atlantic States.

Table 8 shows the estimated cost of new residential buildings, new nonresidential buildings, and total building operations, together with the number of families provided for in new buildings, in 347 identical cities for February, 1931, and March, 1931.

Reports were received from 52 cities in the New England States; 69 cities in the Middle Atlantic States; 95 cities in the East North Central States; 26 cities in the West North Central States; 36 cities in the South Atlantic States; 33 cities in the South Central States; and 36 cities in the Mountain and Pacific States.

Permits were issued for the following important projects during the month of March: In Boston, Mass., a contract was let by the Supervising Architect of the Treasury Department for a new post office and Federal courthouse to cost nearly $4,650,000. In Springfield, Mass., the Supervising Architect let a contract for a new post office and courthouse to cost nearly $700,000. In Irvington, N. J., a permit was issued for a public-school building to cost nearly $400,000; in the Borough of the Bronx, for a county courthouse to cost $7,000,000 and for apartment houses to cost over $5,000,000. In the Borough of Manhattan, a contract was let by the Supervising Architect for the foundation of a new parcel-post building to cost over $600,000. In Syracuse, N. Y., a permit was issued for a school building to cost $500,000; in Pittsburgh, Pa., for a school building to cost $490,000; in Chicago, Ill., for an office building to cost $14,000,000 and for a school building to cost over $1,600,000; in Columbus, Ohio, for an office building to cost $350,000. In Washington, D. C., the Municipal Architect let a contract for a school building to cost nearly $420,000. In Wilmington, Del., a permit was issued for a school building to cost over $425,000; in Mobile, Ala., for a hospital to cost $200,000; in Louisville, Ky., for two school buildings to cost $550,000; in Phoenix, Ariz., for an office building to cost $800,000; in San Francisco, Calif., for a church to cost $200,000; in Oakland, Calif., for a school building to cost $350,000; and in Portland, Oreg., for a church to cost $200,000.

No reports were received from New London, Conn.; Atlantic City, N. J.; Zanesville, Ohio; Pensacola and West Palm Beach, Fla.; Lynchburg, Va.; Fort Smith, Ark.; Lexington, Ky.; Muskogee, Okla.; Galveston and Laredo, Tex.; Riverside and Santa Barbara, Calif.

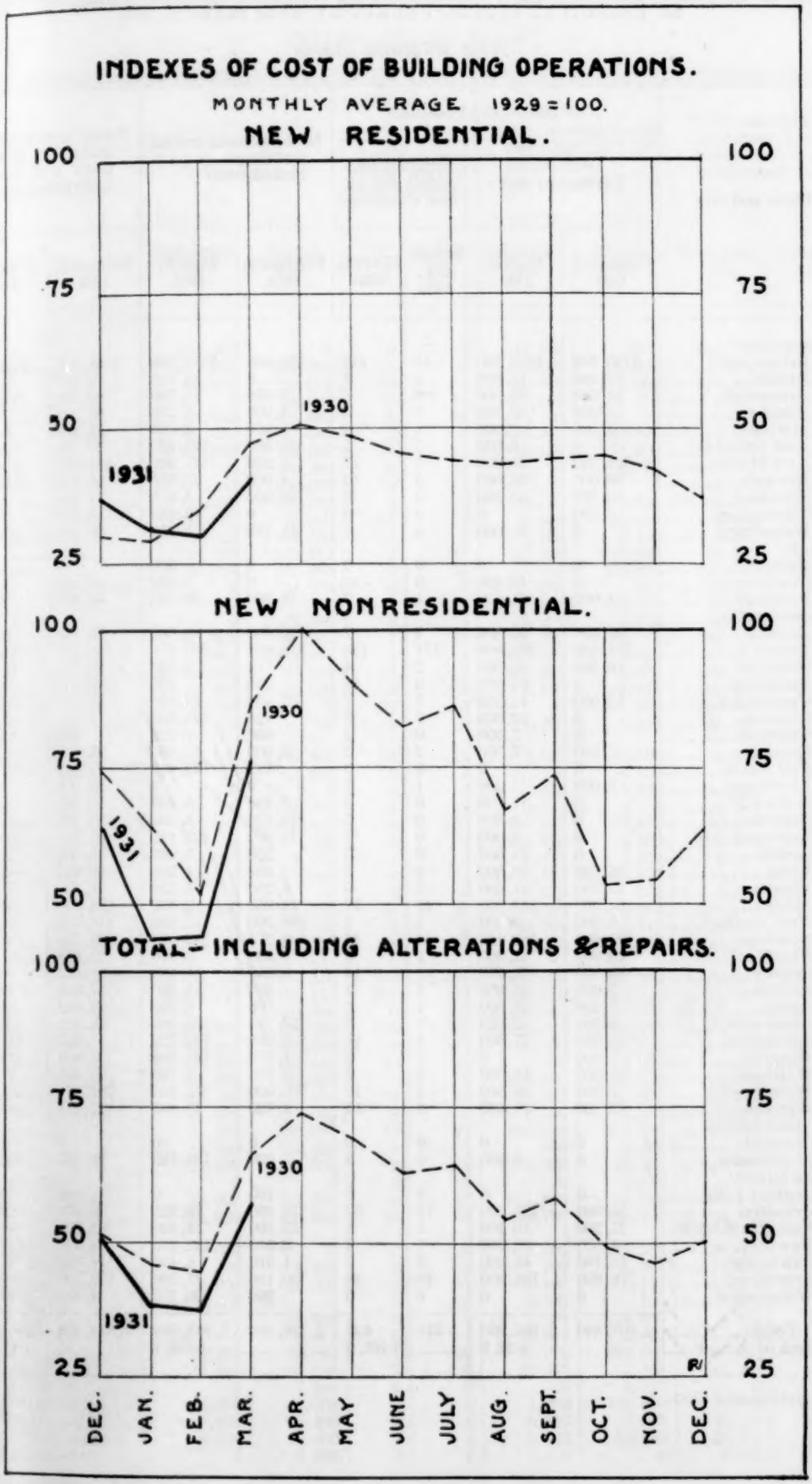

INDEXES OF COST OF BUILDING OPERATIONS.
MONTHLY AVERAGE 1929 = 100.
NEW RESIDENTIAL.
100
75
50
25
1930
1931
NEW NONRESIDENTIAL.
TOTAL - INCLUDING ALTERATIONS & REPAIRS.
DEC.
JAN.
FEB.
MAR.
APR.
MAY
JUNE
JULY
AUG.
SEPT.
OCT.
NOV.
DEC.

TABLE 8.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN 347 PRINCIPAL CITIES, FEBRUARY AND MARCH, 1931

New England States

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings					
	February, 1931	March, 1931	February, 1931	March, 1931	February, 1931	March, 1931	February, 1931	March, 1931
Connecticut:								
Bridgeport	$123,300	$339,900	10	113	$34,035	$216,390	$168,220	$599,780
Bristol	19,000	13,600	5	3	0	41,825	19,800	64,836
Greenwich	58,000	66,500	5	8	12,900	11,750	86,000	123,450
Hartford	14,000	40,700	4	9	4,900	8,210	59,264	117,874
Meriden	3,500	5,000	1	1	6,250	4,785	21,870	18,918
New Britain	0	5,000	0	1	18,800	133,625	24,728	148,407
New Haven	527,500	88,000	4	17	8,950	137,400	558,685	269,414
Norwalk	30,000	68,000	5	12	4,000	27,950	49,850	138,170
Stamford	20,500	51,500	3	9	20,050	5,475	51,040	75,925
Torrington	8,000	0	2	0	0	3,850	23,570	5,735
Waterbury	0	31,000	0	7	11,700	3,650	20,950	125,950
Maine:								
Bangor	0	0	0	0	0	500	0	500
Lewiston	0	40,000	0	10	0	1,500	13,000	47,500
Portland	4,000	21,500	1	3	18,200	20,255	36,370	70,623
Massachusetts:								
Beverly	18,000	39,200	4	7	12,400	8,600	50,630	52,775
Boston [1]	575,440	592,800	151	138	1,319,625	4,889,870	2,183,609	5,820,033
Brockton	10,500	16,500	2	4	775	5,640	20,350	31,655
Brookline	0	99,500	0	11	250	300	15,925	108,150
Cambridge	12,000	41,250	3	7	62,409	13,450	87,519	331,760
Chelsea	0	22,000	0	3	425	125,000	3,925	158,680
Chicopee	0	7,500	0	2	600	2,325	800	12,600
Everett	7,000	7,000	2	2	12,000	11,400	23,700	22,800
Fall River	0	0	0	0	692	132,412	11,042	139,792
Fitchburg	5,000	250	1	1	0	0	23,600	4,750
Haverhill	0	11,700	0	3	3,450	6,200	10,100	19,725
Holyoke	0	4,500	0	1	135,100	3,500	140,100	17,000
Lawrence	0	8,000	0	1	13,300	128,145	27,757	168,235
Lowell	0	13,000	0	3	250	3,900	9,660	26,990
Lynn	26,800	33,800	6	8	2,500	4,385	60,040	53,254
Malden	22,700	41,500	5	9	9,250	18,570	39,460	77,700
Medford	67,500	157,000	15	32	64,050	2,400	134,520	169,175
New Bedford	5,000	9,500	1	1	104,500	11,350	116,775	38,350
Newton	123,000	489,150	14	43	3,775	249,910	135,785	792,355
Pittsfield	10,000	31,500	2	5	200	8,010	22,275	61,060
Quincy	35,500	59,700	11	14	9,500	13,385	91,075	90,183
Revere	7,000	15,000	2	3	400	14,500	17,050	40,565
Salem	7,500	31,500	1	5	300	6,050	21,045	62,830
Somerville	6,500	12,000	2	3	52,750	199,800	66,521	228,270
Springfield	21,600	77,000	4	11	3,000	702,922	51,600	845,377
Taunton	2,600	0	1	0	1,575	163,905	21,825	172,306
Waltham	13,000	17,000	3	3	2,775	2,150	22,325	67,695
Watertown	7,500	50,500	2	10	750,900	212,650	761,675	278,450
Worcester	42,100	71,850	8	15	4,730	17,195	117,013	148,205
New Hampshire:								
Concord	0	0	0	0	0	0	0	4,000
Manchester	0	6,500	0	3	630	133,785	25,160	155,210
Rhode Island:								
Central Falls	0	0	0	0	100	0	1,000	10,865
Cranston	54,900	137,200	12	32	10,250	16,225	70,275	159,300
East Providence	21,200	50,400	5	8	52,800	19,320	82,005	79,615
Newport	4,500	20,000	1	4	2,550	122,270	12,420	145,210
Pawtucket	12,700	48,000	3	7	1,510	8,430	18,920	81,120
Providence	79,000	194,200	10	33	20,150	47,000	179,390	338,875
Woonsocket	0	0	0	0	200	20,270	4,360	25,105
Total	2,006,340	3,187,200	311	625	2,799,456	7,942,389	5,814,578	12,847,102
Per cent of change		+58.9		+101.0		+183.7		+120.9

[1] Applications filed.

TABLE 8.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN 347 PRINCIPAL CITIES, FEBRUARY AND MARCH, 1931—Continued

Middle Atlantic States

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings					
	February, 1931	March, 1931	February, 1931	March, 1931	February, 1931	March, 1931	February, 1931	March, 1931
New Jersey:								
Bayonne	$14,000	0	8	0	$11,250	$500	$32,750	$9,150
Belleville	16,985	$61,200	4	10	1,100	10,300	25,125	75,314
Bloomfield	80,000	80,000	14	17	20,000	5,000	106,000	94,000
Camden	0	38,000	0	14	4,350	32,910	9,685	85,970
Clifton	27,600	94,300	6	20	77,150	46,025	106,075	148,625
East Orange	11,000	37,500	2	8	36,955	40,805	94,642	99,755
Elizabeth	147,000	62,000	48	13	24,100	21,000	171,100	83,000
Garfield	0	55,200	0	19	0	1,775	0	66,475
Hoboken	0	100,000	0	40	0	0	15,350	116,620
Irvington	15,437	35,800	2	7	19,750	488,904	38,152	533,754
Jersey City	43,900	18,000	11	4	19,435	23,445	110,885	117,660
Kearny	6,000	33,500	1	8	1,200	3,350	8,900	39,400
Montclair	44,500	172,782	5	18	27,450	19,656	83,295	218,018
Newark	34,000	296,500	4	90	54,705	103,710	218,222	608,169
New Brunswick	0	24,800	0	4	1,000	850	23,825	38,220
Orange	0	0	0	0	500	28,604	17,800	28,604
Passaic	0	5,000	0	1	3,200	4,100	23,925	47,350
Paterson	31,950	48,000	7	11	19,800	41,745	99,509	148,678
Perth Amboy	3,600	3,500	1	1	11,200	2,460	27,073	21,578
Plainfield	102,000	55,000	11	7	268,961	5,000	385,145	75,000
Trenton	50,000	12,800	0	3	4,846	54,534	65,246	126,747
Union City	35,000	0	17	0	0	7,400	46,785	19,060
West New York	0	0	0	0	1,000	1,500	15,625	15,465
New York:								
Albany	118,500	118,300	13	19	3,500	21,100	179,372	205,157
Amsterdam	0	15,000	0	3	0	1,950	1,000	26,750
Auburn	9,500	0	2	0	950	1,890	11,800	5,435
Binghamton	16,300	36,500	4	5	2,125	4,172	32,993	103,795
Buffalo	110,000	505,400	39	160	264,417	970,610	489,630	1,600,708
Elmira	0	10,200	0	2	252,876	9,800	273,115	38,011
Jamestown	4,000	9,000	1	2	1,775	2,800	9,665	21,870
Kingston	26,000	7,200	5	2	15,375	30,075	48,240	41,570
Lockport	0	0	0	0	5,125	600	7,535	1,140
Mount Vernon	348,500	281,000	62	30	3,750	2,860	370,150	316,195
Newburgh	0	0	0	0	24,814	5,740	28,314	7,740
New Rochelle	110,100	366,650	8	27	3,025	117,460	118,904	527,095
New York—								
The Bronx [1]	3,753,550	6,033,550	956	1,391	337,300	7,232,850	4,545,075	13,618,115
Brooklyn [1]	3,624,500	3,199,350	925	797	608,510	1,037,995	5,672,490	6,325,001
Manhattan [1]	0	698,000	0	160	9,133,360	17,789,039	10,128,210	20,648,814
Queens [1]	3,454,800	8,249,700	860	1,729	1,583,127	1,594,448	5,424,812	10,385,540
Richmond [1]	94,200	386,500	26	134	58,590	374,955	213,231	855,193
Niagara Falls	31,200	116,450	10	22	1,580	4,750	50,904	157,751
Poughkeepsie	23,500	24,000	4	3	330,200	41,300	358,300	69,950
Rochester	13,700	213,500	2	21	79,428	267,676	138,996	570,629
Schenectady	21,500	33,000	3	6	5,500	6,550	39,080	76,950
Syracuse	61,300	140,600	12	28	609,383	603,350	1,593,763	807,845
Troy	12,200	299,500	3	6	300	2,450	19,100	345,985
Utica	11,000	38,000	2	8	2,000	20,735	64,043	72,410
Watertown	0	0	0	0	0	3,410	4,775	19,508
White Plains	88,000	153,200	8	10	611,800	95,150	701,140	1,298,250
Yonkers	423,000	466,690	54	50	1,322,700	245,400	1,795,175	769,880
Pennsylvania:								
Allentown	8,000	0	2	0	11,900	16,575	36,600	45,475
Altoona	11,000	9,400	3	3	1,760	7,803	18,638	42,977
Bethlehem	5,000	35,500	1	7	16,600	6,150	21,600	47,950
Butler	3,500	0	1	0	3,500	750	7,300	9,350
Chester	0	5,000	0	2	1,450	14,050	2,275	34,095
Easton	0	4,467	0	1	10,372	5,450	13,372	13,022
Erie	60,900	65,500	14	12	16,970	192,055	96,625	330,865
Harrisburg	15,000	30,000	3	6	27,800	7,350	62,295	60,775
Hazleton	0	7,945	0	2	0	3,151	0	12,016
Johnstown	3,000	12,000	1	1	1,300	139,800	17,410	157,465
Lancaster	7,000	3,500	2	1	6,350	6,560	23,000	24,480
McKeesport	5,000	13,000	1	4	5,450	14,135	23,075	40,028
Nanticoke	0	8,000	0	1	0	0	9,000	22,000

[1] Applications filed.

TABLE 8.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN 347 PRINCIPAL CITIES, FEBRUARY AND MARCH, 1931—Continued

Middle Atlantic States—Continued

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings					
	February, 1931	March, 1931	February, 1931	March, 1931	February, 1931	March, 1931	February, 1931	March, 1931
Pennsylvania—Con.								
New Castle	$7,200	$34,400	2	7	$1,945	$7,895	$11,220	$49,470
Norristown	0	89,400	0	14	1,075	5,734	6,084	113,339
Philadelphia	634,200	479,200	137	117	186,165	466,805	1,282,795	1,254,050
Pittsburgh	374,885	298,000	82	58	130,566	1,105,466	662,881	1,662,914
Reading	13,000	86,200	1	8	31,500	13,150	83,690	148,729
Scranton	4,000	4,750	1	3	4,590	11,320	18,665	107,823
Wilkes-Barre	7,225	12,137	2	9	20,232	1,865	40,387	35,789
Wilkinsburg	31,000	12,000	7	3	1,450	3,800	39,375	34,549
Williamsport	11,500	1,500	2	1	70	134,396	16,707	161,187
York	17,750	23,500	5	6	1,765	11,407	33,223	49,329
Total	14,237,482	23,870,571	3,407	5,176	16,352,272	33,608,355	36,571,143	66,191,596
Per cent of change		+67.7		+51.9		+105.5		+81.0

East North Central States

Illinois:								
Alton	$36,950	0	1	0	$93,073	$3,825	$142,043	$13,133
Aurora	2,855	$11,085	1	3	850	16,265	17,077	68,052
Belleville	10,500	10,000	3	2	15,100	5,000	29,800	16,325
Berwyn	51,500	48,000	7	6	4,100	7,100	58,450	56,350
Bloomington	13,000	9,000	2	2	70,000	10,000	84,000	26,000
Chicago	731,200	1,032,200	128	166	7,163,300	16,606,820	8,176,495	18,361,230
Cicero	0	24,000	0	5	159,125	3,215	161,875	33,666
Danville	0	0	0	0	550	500	3,650	5,700
Decatur	8,200	52,700	2	7	26,600	14,200	35,250	68,400
East St. Louis	44,100	48,350	9	17	3,900	169,400	51,200	220,350
Elgin	30,150	33,200	6	5	2,100	17,690	45,550	57,225
Evanston	45,000	153,000	5	4	2,500	24,500	71,250	218,000
Granite City	0	5,000	0	1	16,000	0	17,000	5,800
Joliet	46,000	60,500	8	10	20,000	14,200	79,500	97,900
Maywood	11,000	0	2	0	180,100	650	193,725	2,595
Moline	21,800	26,600	5	6	39,350	3,250	64,701	52,917
Oak Park	0	53,000	0	4	910	3,920	23,085	63,565
Peoria	76,500	128,500	15	34	3,225	7,975	90,125	148,875
Quincy	0	0	0	0	500	360	2,100	2,985
Rockford	39,500	27,600	11	5	3,500	4,350	57,750	50,890
Rock Island	12,000	15,000	3	2	228,720	1,535	248,361	35,063
Springfield	60,200	57,700	10	12	86,767	69,252	161,617	172,127
Waukegan	19,000	35,000	2	6	63,300	46,900	83,050	87,600
Indiana:								
Anderson	5,500	16,300	2	4	0	10,632	5,500	34,582
East Chicago	0	0	0	0	2,100	122,350	6,239	125,415
Elkhart	0	8,000	0	2	510	5,905	5,250	22,470
Evansville	55,300	57,700	11	15	7,890	3,910	74,908	73,968
Fort Wayne	87,650	68,179	18	16	227,637	17,485	343,554	112,089
Gary	0	33,500	0	6	589,525	5,190	602,225	46,640
Hammond	21,500	12,000	6	4	3,650	15,325	27,000	35,175
Indianapolis	255,225	182,800	53	33	653,652	709,397	987,375	982,838
Kokomo	0	0	0	0	75,010	565	76,210	74,840
Lafayette	4,000	0	2	0	2,000	0	6,000	0
Marion	0	2,800	0	3	5,500	710	7,690	7,674
Michigan City	6,500	5,800	3	1	525	25,775	7,725	32,150
Mishawaka	0	0	0	0	35,400	4,675	36,950	7,775
Muncie	2,700	7,300	1	4	102,325	11,645	112,327	35,422
Richmond	2,500	22,500	1	3	21,500	199,900	28,200	227,400
South Bend	0	49,700	0	10	31,055	20,460	37,471	79,545
Terre Haute	1,500	17,500	1	5	1,640	2,080	6,285	27,997
Michigan:								
Ann Arbor	54,500	36,200	6	6	1,575	3,600	74,285	51,865
Battle Creek	4,600	7,800	2	2	3,750	23,450	11,450	32,000
Bay City	9,000	19,500	2	5	17,625	10,035	34,205	68,851
Dearborn	140,424	142,700	40	30	130,690	26,360	277,314	170,750
Detroit	1,152,300	1,335,650	244	273	622,391	760,654	2,024,185	2,443,249
Flint	48,696	60,646	9	13	3,642	330,958	95,878	416,834

TABLE 8.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN 347 PRINCIPAL CITIES, FEBRUARY AND MARCH, 1931—Continued

East North Central States—Continued

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total constructions, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings					
	February, 1931	March, 1931	February, 1931	March, 1931	February, 1931	March, 1931	February, 1931	March, 1931
Michigan—Contd.								
Grand Rapids	$4,000	$38,000	1	12	$8,555	$50,860	$33,970	$135,495
Hamtramck	0	1,500	0	1	500	975	6,510	10,195
Highland Park	0	0	0	0	800	1,615	3,750	17,760
Jackson	15,900	12,200	3	2	4,050	20,160	25,455	50,375
Kalamazoo	21,400	34,100	7	11	3,990	3,620	35,815	57,431
Lansing	22,400	7,400	6	2	4,242	1,325	31,192	17,675
Muskegon	3,000	4,000	1	1	550	15,875	8,945	19,875
Pontiac	0	0	0	0	94,425	1,530	101,450	8,860
Port Huron	2,300	3,500	1	2	2,500	0	6,225	3,500
Saginaw	400	4,100	1	3	19,430	7,440	23,250	25,231
Wyandotte	18,600	19,100	5	5	68,000	187,980	88,900	210,812
Ohio:								
Akron	33,700	76,200	7	13	44,327	19,086	112,527	122,753
Ashtabula	0	900	0	1	643	3,665	5,708	8,690
Canton	0	16,500	0	2	41,195	50,935	62,715	108,030
Cincinnati	428,750	854,800	75	213	143,825	754,530	1,502,875	1,747,275
Cleveland	236,500	222,500	47	45	203,650	210,275	2,416,875	951,225
Cleveland Heights	102,800	178,700	14	23	11,250	10,850	127,025	193,290
Columbus	158,900	258,200	28	58	90,900	379,000	290,900	680,000
Dayton	49,000	132,312	9	33	23,316	41,601	102,791	205,883
East Cleveland	0	0	0	0	3,230	200	5,380	2,775
Elyria	0	10,000	0	3	195	10,685	1,645	26,745
Hamilton	4,800	21,575	2	6	375	6,163	7,565	33,178
Lakewood	81,800	10,500	19	3	83,025	20,540	169,280	41,040
Lima	6,200	0	2	0	300	805	10,275	10,049
Lorain	21,425	13,100	6	4	65,300	3,433	95,475	19,243
Mansfield	28,000	62,800	6	11	7,660	15,625	38,694	84,507
Marion	0	3,000	0	1	300	150	2,850	3,310
Massillon	0	3,000	0	1	192	1,800	2,042	26,500
Middletown	5,800	0	1	0	1,275	6,325	12,675	10,670
Newark	5,400	8,500	2	4	1,700	12,950	7,100	23,850
Norwood	44,500	25,500	16	4	1,325	12,140	46,150	46,490
Portsmouth	0	3,500	0	1	376,015	4,040	378,540	11,990
Springfield	23,100	16,900	6	5	12,310	10,040	44,173	31,270
Steubenville	0	9,900	0	3	1,500	500	3,250	20,000
Toledo	65,500	100,300	13	25	117,452	52,729	225,827	201,561
Warren	9,800	12,340	3	4	6,000	4,485	29,060	20,820
Youngstown	25,100	47,900	8	10	9,805	186,210	46,740	278,928
Wisconsin:								
Appleton	13,300	34,100	3	7	175,654	170,635	191,779	224,570
Eau Claire	4,500	24,000	7	7	200	160,480	6,200	184,480
Fond du Lac	6,725	7,400	5	2	9,400	10,000	19,765	21,215
Green Bay	15,500	29,050	4	8	625	11,140	78,050	63,965
Kenosha	0	0	0	0	2,060	12,500	9,730	26,680
Madison	32,950	78,000	8	7	8,575	14,735	56,326	110,442
Milwaukee	566,400	437,600	121	84	99,806	216,684	758,670	848,471
Oshkosh	4,000	23,240	2	7	10,809	122,324	20,603	184,637
Racine	27,300	10,300	4	2	6,745	26,350	44,870	56,090
Sheboygan	9,400	33,500	2	8	760	19,049	22,095	66,752
Superior	1,800	17,500	1	5	250	1,445	12,480	25,499
West Allis	12,000	30,000	4	6	3,000	14,525	23,800	49,525
Total	5,225,300	6,854,527	1,071	1,387	12,496,153	22,231,977	22,143,847	32,303,884
Per cent of change		+31.2		+29.5		+77.9		+45.9

West North Central States

Iowa:								
Burlington	$900	$13,050	1	5	$7,750	$5,450	$13,061	$24,185
Cedar Rapids	28,000	31,000	3	10	12,570	9,455	58,639	61,837
Council Bluffs	10,000	5,000	4	2	11,000	1,000	34,000	16,000
Davenport	34,300	75,570	8	17	21,042	32,972	64,060	415,859
Des Moines	101,700	148,750	22	35	25,555	60,545	136,610	238,069
Dubuque	4,000	14,000	1	4	500	3,900	29,665	49,520

TABLE 8.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN 347 PRINCIPAL CITIES, FEBRUARY AND MARCH, 1931—Continued

West North Central States—Continued

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings					
	February, 1931	March, 1931	February, 1931	March, 1931	February, 1931	March, 1931	February, 1931	March, 1931
Iowa—Continued.								
Ottumwa	$11,000	$7,500	2	2	$5,600	0	$21,700	$13,500
Sioux City	200,000	39,000	41	13	4,245	$21,150	205,795	83,685
Waterloo	10,300	29,000	4	10	29,950	9,025	50,635	42,715
Kansas:								
Hutchinson	7,900	15,800	3	4	1,500	30,690	11,775	48,485
Kansas City	19,650	17,975	8	13	13,258	10,400	36,978	31,700
Topeka	20,950	29,900	8	4	17,865	33,340	44,340	67,765
Wichita	143,505	81,525	46	33	32,095	55,990	183,535	175,691
Minnesota:								
Duluth	14,800	28,800	3	7	10,615	4,235	66,728	78,327
Minneapolis	319,925	347,025	75	93	171,530	2,087,205	576,060	2,659,805
St. Paul	38,040	173,400	8	35	402,242	91,939	490,051	591,259
Missouri:								
Joplin	0	19,400	0	6	5,250	6,500	11,450	32,216
Kansas City	114,500	268,000	28	61	51,950	169,500	229,200	475,400
Springfield	22,200	57,700	12	16	5,750	2,390	40,400	76,855
St. Joseph	1,600	5,000	2	2	995	7,060	12,415	18,106
St. Louis	394,600	645,000	110	193	1,178,008	323,597	1,688,340	1,122,821
University City	106,500	238,050	18	32	3,250	19,995	111,500	270,570
Nebraska:								
Lincoln	22,300	61,950	6	8	22,438	4,900	52,733	73,210
Omaha	111,100	134,300	26	30	810,246	147,567	937,896	561,500
North Dakota: Fargo	0	20,200	0	6	0	240	3,500	49,947
South Dakota: Sioux Falls	60,250	113,453	13	27	16,025	112,485	89,400	237,000
Total	1,798,020	2,620,348	452	668	2,861,229	3,251,530	5,200,466	7,516,027
Per cent of change		+45.7		+47.8		+13.6		+44.5

South Atlantic States

Delaware: Wilmington	$93,350	$75,300	17	17	$20,596	$445,980	$393,318	$552,869
District of Columbia: Washington	4,165,375	1,980,350	600	300	711,050	1,066,373	5,496,930	3,167,626
Florida:								
Jacksonville	55,600	49,850	13	19	20,755	45,755	109,965	171,850
Miami	13,350	56,250	10	22	64,860	124,875	110,926	235,068
Orlando	4,750	0	5	0	1,600	1,135	27,875	12,065
St. Petersburg	13,300	14,700	3	4	1,000	5,200	24,950	30,600
Tampa	61,950	33,125	9	11	37,550	8,435	112,302	67,048
Georgia:								
Atlanta	122,060	115,650	43	53	67,273	17,066	271,823	397,816
Columbus	4,750	20,000	3	4	5,000	445	13,205	23,935
Macon	0	2,400	0	4	0	8,100	0	29,595
Savannah	28,600	31,600	8	11	740	7,175	32,840	47,400
Maryland:								
Baltimore	643,000	482,000	210	104	1,197,300	904,900	2,297,900	1,972,300
Cumberland	4,000	15,000	2	4	450	118,385	5,275	137,214
Hagerstown	29,500	26,500	7	4	1,655	3,725	31,505	33,535
North Carolina:								
Asheville	500	1,000	1	1	6,600	3,810	27,455	13,771
Charlotte	54,450	107,300	15	29	2,185	13,965	67,526	162,398
Durham	27,000	15,900	8	6	1,500	0	31,439	26,906
Greensboro	17,086	19,333	3	5	7,365	2,815	32,217	45,593
High Point	22,900	14,300	5	7	318,500	22,490	346,800	36,790
Raleigh	24,800	31,409	2	4	1,025	2,250	35,200	39,208
Wilmington	12,500	5,800	4	3	500	48,100	16,800	67,200
Winston-Salem	0	49,651	0	15	1,480	4,530	15,985	77,431
South Carolina:								
Charleston	20,000	15,900	4	7	8,135	400	45,800	21,688
Columbia	24,000	32,200	10	17	9,175	9,800	39,605	59,550
Greenville	42,550	39,500	11	6	3,340	20,450	52,915	72,993
Spartanburg	2,000	500	2	1	100	55,425	4,225	59,415

TABLE 8.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN 347 PRINCIPAL CITIES, FEBRUARY AND MARCH, 1931—Continued

South Atlantic States—Continued

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings					
	February, 1931	March, 1931	February, 1931	March, 1931	February, 1931	March, 1931	February, 1931	March, 1931
Virginia:								
Newport News	$2,700	$16,975	2	7	$2,363	$176,864	$15,420	$208,915
Norfolk	47,700	45,300	12	13	9,481	30,545	158,826	97,916
Petersburg	0	4,000	0	1	400	0	1,100	4,250
Portsmouth	18,000	23,050	6	8	5,750	2,621	31,380	34,456
Richmond	50,100	362,500	10	30	20,357	46,883	121,290	450,874
Roanoke	5,800	71,000	2	21	6,955	3,488	26,206	79,545
West Virginia:								
Charleston	16,150	21,500	6	7	1,400	47,100	20,100	76,150
Clarksburg	3,000	14,500	1	5	2,200	35,780	14,810	60,680
Parkersburg	8,000	0	3	0	7,133	8,050	26,153	10,550
Wheeling	14,000	11,000	2	2	87,000	6,510	105,176	41,739
Total	5,652,821	3,805,043	1,039	752	2,632,773	3,299,425	10,165,222	8,624,939
Per cent of change		−32.7		−27.6		+25.3		−15.2

South Central States

Alabama:								
Birmingham	$6,300	$33,650	7	12	$109,223	$12,975	$163,360	$102,863
Mobile	8,500	9,400	7	5	2,500	207,500	26,000	230,416
Montgomery	41,800	60,900	22	24	15,350	11,125	67,670	85,885
Arkansas: Little Rock	8,850	72,750	4	14	16,595	3,494	52,345	93,384
Kentucky:								
Ashland	4,300	0	3	0	300	15,000	25,100	17,125
Covington	12,800	31,700	5	10	2,600	6,925	17,050	53,730
Louisville	153,500	155,500	21	20	167,170	591,750	388,495	820,175
Newport	0	4,000	0	1	300	350	1,800	11,050
Paducah	1,900	11,700	3	6	1,500	65,600	5,000	77,600
Louisiana:								
Baton Rouge	16,627	32,927	15	16	27,410	31,637	131,268	90,590
Monroe	34,472	6,850	21	7	267,075	1,000	304,547	15,265
New Orleans	96,100	57,793	27	26	34,334	514,114	289,915	638,836
Shreveport	38,008	25,315	15	8	6,366	7,150	61,077	74,152
Oklahoma:								
Enid	24,700	15,595	8	7	1,500	3,850	26,200	19,445
Oklahoma City	456,700	326,800	184	94	1,973,100	1,949,850	2,448,020	2,395,825
Okmulgee	0	0	0	0	4,000	100	4,395	400
Tulsa	183,750	210,815	44	39	125,335	42,540	347,613	290,535
Tennessee:								
Chattanooga	38,805	21,000	8	10	25,100	14,500	123,830	64,541
Johnson City [1]		2,750		2		2,650		5,600
Knoxville	14,940	30,000	9	6	57,497	19,380	90,071	54,450
Memphis	73,450	48,100	30	26	68,510	34,450	224,167	250,534
Nashville	81,200	82,350	29	27	152,725	48,640	250,429	200,465
Texas:								
Amarillo	88,500	81,450	16	15	269,325	600	371,174	88,685
Austin	98,699	117,730	53	48	417,526	7,094	528,181	132,664
Beaumont	15,403	47,900	10	11	2,825	62,190	40,777	139,774
Corpus Christi	10,950	56,500	9	35	1,650	6,475	18,705	73,715
Dallas	188,425	234,600	92	140	75,980	208,182	349,175	543,390
El Paso	71,775	82,290	24	33	4,581	44,247	97,709	147,417
Fort Worth	171,925	164,705	56	55	395,393	101,213	607,430	297,573
Houston	759,300	788,700	190	194	504,775	218,500	1,299,750	1,037,750
San Angelo	5,585	10,300	7	4	5,150	9,450	13,100	20,700
San Antonio	75,875	126,710	55	90	130,440	33,600	243,168	185,395
Waco	33,787	19,200	9	9	23,333	1,227,032	69,594	1,254,732
Wichita Falls	0	10,300	0	2	700	2,150	5,290	19,501
Total	2,816,926	2,977,530	983	994	4,890,168	5,502,663	8,692,405	9,528,562
Per cent of change		+5.7		+1.1		+12.5		+9.6

[1] Schedule received for the first time, March, 1931; not included in totals.

TABLE 8.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN 347 PRINCIPAL CITIES, FEBRUARY AND MARCH, 1931—Continued

Mountain and Pacific States

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repair (estimated cost)	
	Estimated cost		Families provided for in new dwellings					
	February, 1931	March, 1931	February, 1931	March, 1931	February, 1931	March, 1931	February, 1931	March, 1931
Arizona:								
Phoenix	$61,900	$81,900	29	29	$137,050	$820,369	$205,560	$907,919
Tucson	38,750	39,700	12	16	4,375	279,035	50,452	335,474
California:								
Alameda	22,500	85,500	5	21	10,758	6,040	40,443	96,677
Alhambra	67,600	95,450	30	36	3,150	132,650	72,300	233,150
Bakersfield	36,750	50,425	9	15	3,135	56,175	53,575	125,624
Berkeley	72,700	82,250	13	19	59,408	25,933	156,709	128,009
Fresno	41,700	73,000	11	20	28,245	21,615	120,720	115,285
Glendale	102,450	255,450	23	59	26,725	63,035	142,165	332,740
Long Beach	252,950	364,250	89	142	55,730	167,950	344,365	584,395
Los Angeles	1,624,032	2,214.249	481	780	1,475,329	1,410,267	3,677,072	4,272,107
Oakland	232,025	328,543	68	94	691,901	538,669	989,460	956,225
Pasadena	64,225	112,290	19	18	15,194	224,270	162,566	336,560
Sacramento	89,000	206,000	16	39	473,891	35,095	607,781	297,545
San Bernardino	51,450	73,945	17	23	5,674	4,379	64,726	91,619
San Diego	245,550	212,677	65	56	160,179	451,367	466,826	839,906
San Francisco	1,017,037	932,968	241	231	513,740	946,203	1,690,363	2,071,179
San Jose	98,615	109,200	25	34	2,385	47,125	118,353	207,035
Santa Ana	54,582	71,800	11	14	4,000	7,300	64,472	88,235
Santa Monica	163,800	93,250	54	23	69,746	4,925	239,181	106,100
Stockton	29,800	84,750	7	21	57,740	39,332	107,075	134,457
Vallejo	2,400	18,800	1	4	22,720	505	32,435	27,930
Colorado:								
Colorado Springs	13,100	12,300	2	5	15,525	3,407	54,210	24,149
Denver	320,500	574,950	72	142	55,650	80,690	494,300	754,440
Pueblo	0	2,650	0	2	12,830	7,478	20,746	23,338
Montana:								
Butte	0	0	0	0	200	5,835	250	6,710
Great Falls	7,600	89,300	5	20	47,320	121,925	71,795	222,200
New Mexico: Albuquerque	72,392	50,050	18	17	514,335	21,475	620,084	78,871
Oregon:								
Portland	355,300	287,950	75	73	167,515	260,070	663,400	677,750
Salem	5,450	20,505	3	9	4,095	4,405	19,889	28,363
Utah:								
Ogden	1,000	10,800	1	5	450	0	30,140	11,300
Salt Lake City	151,750	85,800	54	25	58,362	25,625	231,282	149,889
Washington:								
Bellingham	15,000	12,100	6	5	320	725	24,265	31,385
Everett	7,000	3,500	3	2	755	1,475	21,610	9,940
Seattle	505,250	347,275	142	123	264,750	307,228	879,825	910,623
Spokane	66,575	112,350	21	28	20,635	137,175	199,595	293,520
Tacoma	24,000	91,500	9	42	155,055	220,340	202,870	347,950
Total	5,914,733	7,287,427	1,637	2,192	5,138,872	6,480,092	12,940,860	15,858,599
Per cent of change		+23.2		+33.9		+26.1		+22.5

Hawaii

Hawaii: Honolulu	$74,335	$164,100	39	90	$29,949	$64,246	$129,693	$263,304
Per cent of change		+120.8		+130.8		+114.5		+103.0

Apartment-House Construction in American Cities, 1930

BUILDING permit reports have been received by the Bureau of Labor Statistics from 257 identical cities having a population of 25,000 or over, continuously since 1921. These show the number of families provided for in new building construction and the class of dwellings with which they were provided. The tables below show the percentage of families provided for in each class of dwelling for the years 1921, 1929, and 1930.

The dwellings are divided into three classes: 1-family, 2-family and multifamily. A 2-family dwelling is defined as one in which one family lives above the other, or in which two families live on the same floor and use a common entrance. A semidetached dwelling is one of two with a party wall between and having a separate entrance. Each is counted as a separate 1-family dwelling. A multifamily dwelling is a dwelling accommodating three or more families. The term is equivalent to the more generally used appellations, apartment house or tenement.

Table 1 shows the percentage of families provided for by the different types of dwellings in the above-mentioned years in 257 identical cities, by population groups:

TABLE 1.—PER CENT OF FAMILIES PROVIDED FOR BY DIFFERENT TYPES OF DWELLINGS IN CITIES HAVING A POPULATION OF 25,000 OR OVER IN 1921, 1929, AND 1930, BY POPULATION GROUPS

Population group and number of cities	Year	Total number of families provided for	Per cent of families provided for in—		
			1-family dwellings	2-family dwellings [1]	Multifamily dwellings [2]
Over 500,000 (14 cities)	1921	112,373	44.2	21.7	34.0
	1929	139,007	25.3	10.3	64.4
	1930	70,199	32.0	12.2	55.8
100,000 to 500,000 (75 cities)	1921	75,073	72.0	12.0	16.0
	1929	70,664	55.8	13.1	31.1
	1930	37,999	59.0	13.0	28.0
50,000 to 100,000 (86 cities)	1921	26,060	74.9	15.0	10.2
	1929	23,365	65.3	11.0	23.7
	1930	10,884	69.6	9.7	20.7
25,000 to 50,000 (82 cities)	1921	11,039	68.7	18.2	13.1
	1929	11,358	72.3	14.7	13.0
	1930	6,240	77.8	9.4	12.9
Total (257 cities)	1921	224,545	58.3	17.3	24.4
	1929	244,394	40.2	11.4	48.5
	1930	125,322	45.7	12.1	42.2

[1] Includes 1-family and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

In these 257 cities, 125,322 families were provided with dwelling places in the new buildings for which permits were issued in 1930; 45.7 per cent of the dwelling units provided were in 1-family dwellings; 42.2 per cent in multifamily dwellings; and 12.1 per cent in 2-family dwellings. This is a decrease in the percentage provided for in multifamily dwellings as compared with the year 1929. Except in the cities having a population of 500,000 or over, all the population groups showed a larger percentage of families provided for by 1-family dwellings than by apartment houses in each of the three years under discussion.

There is a great difference in the relative percentage of families provided for in 1-family dwellings to families provided for in apartment houses in the different population groups. During 1930, in the cities having a population of over 500,000, less than one-third of the family dwelling units were provided in 1-family dwellings; while in cities having a population of from 25,000 to 50,000, over three-quarters of the families provided for were in 1-family dwellings. In each of the population groups there was an increase in the percentage of families provided for in 1-family dwellings during 1930 as compared with 1929.

Table 2 shows the percentage of families provided for by the different types of dwellings in each of the 14 cities having a population of 500,000 or over in 1921, 1929, and 1930:

TABLE 2.—PER CENT OF FAMILIES PROVIDED FOR BY DIFFERENT TYPES OF DWELLINGS IN CITIES HAVING A POPULATION OF 500,000 OR OVER IN 1921, 1929, AND 1930, BY CITIES

City, State, and year	Total number of families provided for	Per cent of families provided for in—		
		1-family dwellings	2-family dwellings [1]	Multi-family dwellings [2]
Baltimore, Md.:				
1921	2,176	85.0	4.5	10.5
1929	3,022	92.7	.1	9.2
1930	1,484	97.0	----------	3.0
Boston, Mass.:				
1921	878	15.5	30.5	54.0
1929	3,327	15.1	24.4	60.5
1930	1,415	33.1	43.8	23.1
Buffalo, N. Y.:				
1921	2,405	51.6	48.0	.4
1929	1,769	18.9	51.5	29.6
1930	1,072	15.2	52.7	32.1
Chicago, Ill.:				
1921	12,252	37.9	17.6	44.6
1929	18,837	14.9	7.2	77.9
1930	2,741	38.9	18.3	42.8
Cleveland, Ohio:				
1921	4,084	35.5	40.5	24.0
1929	2,143	54.3	19.4	26.3
1930	1,176	60.2	14.8	25.0
Detroit, Mich.:				
1921	6,743	46.9	17.9	35.2
1929	12,151	48.8	26.5	24.7
1930	4,084	55.4	30.5	14.1
Los Angeles, Calif.:				
1921	19,572	68.0	16.9	15.2
1929	15,234	34.8	11.7	53.5
1930	11,437	36.8	12.1	51.1
Milwaukee, Wis.:				
1921	2,212	44.9	38.2	16.9
1929	3,848	24.3	26.0	49.7
1930	1,729	26.2	27.9	45.9
New York, N. Y.:				
1921	51,360	31.6	24.2	44.2
1929	58,320	10.8	6.2	83.0
1930	36,182	18.3	8.2	73.5
The Bronx—				
1921	14,037	11.7	11.9	76.4
1929	13,978	4.9	3.9	91.2
1930	7,012	9.3	3.6	87.2
Brooklyn—				
1921	16,636	24.1	44.0	31.9
1929	11,224	9.7	12.2	78.1
1930	9,275	12.8	10.6	76.5
Manhattan—				
1921	4,837	.7	3.7	95.5
1929	18,067	[3]	[3]	99.9
1930	8,669	.1	[3]	99.9

[1] Includes 1-family and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.
[3] Less than one-tenth of 1 per cent.

TABLE 2.—PER CENT OF FAMILIES PROVIDED FOR BY DIFFERENT TYPES OF DWELLINGS IN CITIES HAVING A POPULATION OF 500,000 OR OVER IN 1921, 1929, AND 1930, BY CITIES—Continued

City, State, and year	Total number of families provided for	Per cent of families provided for in—		
		1-family dwellings	2-family dwellings	Multi-family dwellings
New York, N. Y.—Continued.				
Queens—				
1921	13,256	60.0	24.4	15.6
1929	13,861	27.2	10.4	62.4
1930	10,495	43.6	12.3	44.1
Richmond—				
1921	2,594	100.0		
1929	1,190	61.6	22.1	16.3
1930	731	27.9	62.1	10.0
Philadelphia, Pa.:				
1921	2,406	93.3		6.7
1929	7,098	57.1	3.2	39.7
1930	1,744	69.8	5.8	24.4
Pittsburgh, Pa.:				
1921	1,335	59.3	26.8	13.9
1929	2,153	60.1	9.5	30.4
1930	1,349	66.1	13.0	20.9
St. Louis, Mo.:				
1921	2,072	49.0	24.1	26.8
1929	4,364	28.5	12.1	59.4
1930	1,618	51.8	11.6	36.6
San Francisco, Calif.:				
1921	2,683	37.6	17.0	45.4
1929	3,518	35.1	5.9	59.0
1930	2,206	53.2	5.9	40.9
Washington, D. C.:				
1921	2,195	75.4		24.6
1929	3,223	42.3	.7	57.0
1930	1,962	49.0	1.1	49.8
Total (14 cities):				
1921	112,373	44.2	21.7	34.0
1929	139,007	25.3	10.3	64.4
1930	70,199	33.0	12.2	55.8

In these 14 cities, only 70,199 families were provided with dwelling places in new buildings, according to permits issued in 1930. This compares with 139,007 families provided for according to permits issued in 1929. Both 1-family dwellings and 2-family dwellings showed an increased percentage comparing 1930 with 1929. Multi-family dwellings, however, showed a decreased percentage. There was a marked difference in the proportion of families provided for in apartment houses in the several cities in this population group. For example, New York City provided family dwelling places in apartment houses for 73.5 per cent of all the families provided for during 1930. In contrast, in Baltimore only 3 per cent of the total families provided with dwelling places were to be housed in apartment buildings. Other cities providing for more families in apartment houses than in 1-family dwellings were Chicago, Los Angeles, Milwaukee, and Washington. Cities providing for the larger percentage of their families in 1-family dwellings were Cleveland, Detroit, Philadelphia, Pittsburgh, St. Louis, and San Francisco. Boston and Buffalo were the largest builders of 2-family dwellings.

WAGES AND HOURS OF LABOR

Wages and Hours of Labor, by Industries

THE Bureau of Labor Statistics has for a number of years collected and published hours and earnings every two years for the wage earners in many of the major manufacturing industries in the United States. Part of the major industries have been covered in even years and part in odd years. Those that were covered in 1930 were also studied in 1928. Plans have already been made to collect wage figures in 1931 for the major industries that were covered in 1929. The bureau has also, at irregular intervals or in one year only, made special studies of other industries. In 1930 a study was made of sugar and pineapple plantations, pineapple canneries, and 18 other industries in the Territory of Hawaii. Reports, much more in detail than given in this article, have been published in the Monthly Labor Review and in bulletins of the bureau. They present average hours and earnings in each occupation and industry, by sex, for each State or other geographic unit, of the study for each of the years in which studies have been made.

Summaries of average full-time earnings per week for each industry, in continental or mainland United States and also in Hawaii, are shown in Table 1 of this article. The summaries are for the latest or only year (back to 1927) in which a study of an industry has been made. The bureau has made studies of industries other than those in the table but in each case for years prior to 1927.

In 1930, average full-time hours per week of males in the boot and shoe industry (the first industry in the table) were 48.8, of females were 48.9, and of both sexes or the industry were 48.9. Average earnings per hour of males were 60.4 cents, of females, 38.2 cents, and of both sexes, 51 cents. Average full-time earnings per week of males were $29.48, of females, $18.68, and of both males and females combined, $24.94. These averages may be compared with those for other industries that were covered in 1930, but not with those for industries covered in 1929, 1928, or 1927.

Summaries of average hours and earnings are presented in Table 2, by industry and year, for each of the industries of which studies have been made in more than one year between 1914 and 1930.

In the boot and shoe industry, full-time hours decreased from 54.7 per week in 1914 to 48.9 in 1930, earnings per hour increased from 24.3 cents in 1914 to 53 cents in 1928 and then decreased to 51 cents in 1930, and full-time earnings per week increased from $13.26 in 1914 to $24.94 in 1930. Between 1914 and 1930 full-time hours per week in the industry decreased 5.8 hours or 10.6 per cent; earnings per hour increased 26.7 cents or 109.9 per cent; and full-time earnings per week increased $11.68 or 88.1 per cent. Earnings per week did not increase so much as earnings per hour because of the 10.6 per cent decrease in average full-time hours per week.

TABLE 1.—AVERAGE HOURS AND EARNINGS IN CONTINENTAL UNITED STATES AND IN THE TERRITORY OF HAWAII, BY INDUSTRY

Part of United States (mainland or Hawaii) and industry	Year	Average full-time hours per week			Average earnings per hour			Average full-time earnings per week		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Mainland										
Boots and shoes	1930	48.8	48.9	48.9	$0.604	$0.382	$0.510	$29.48	$18.68	$24.94
Cigarettes	1930	49.9	49.9	49.9	.378	.268	.318	18.86	13.37	15.87
Cotton goods	1930	53.7	52.9	53.4	.346	.293	.325	18.58	15.50	17.36
Dyeing and finishing textiles	1930	51.0	50.5	50.9	.473	.335	.452	24.12	16.92	23.01
Hosiery	1930	52.4	52.1	52.2	.707	.366	.497	37.05	19.07	25.94
Underwear	1930	50.9	50.2	50.3	.457	.330	.357	23.26	16.57	17.96
Lumber	1930	56.5	------	56.5	.359	------	.359	20.28	------	20.28
Men's clothing	1930	44.3	44.2	44.3	.885	.504	.701	39.21	22.28	31.05
Rayon and other synthetic textiles	1930	51.1	49.0	50.2	.504	.344	.441	25.75	16.86	22.14
Sugar refining	1930	59.3	51.5	58.7	.472	.289	.461	27.99	14.88	27.06
Woolen and worsted goods	1930	49.4	49.2	49.3	.532	.403	.473	26.28	19.83	23.32
Aircraft engines	1929	48.9	------	48.9	.706	------	.706	34.52	------	34.52
Airplanes	1929	47.9	47.3	47.9	.669	.380	.663	32.05	17.97	31.76
Coal, bituminous	1929	(1)	------	(1)	[2].659	------	[2].659	(1)	------	(1)
Foundries	1929	51.0	49.7	51.0	.625	.451	.624	31.88	22.41	31.82
Furniture	1929	52.1	50.5	51.9	.499	.345	.490	26.00	17.42	25.43
Iron and steel	1929	54.6	------	54.6	.674	------	.674	36.48	------	36.48
Machine shops	1929	50.3	49.3	50.3	.641	.399	.638	32.24	19.67	32.09
Portland cement	1929	60.8	52.0	60.8	.518	.389	.517	31.49	20.23	31.43
Slaughtering and meat packing	1929	49.3	48.9	49.2	.525	.369	.504	25.88	18.04	24.80
Motor vehicles	1928	49.4	50.3	49.4	.756	.487	.750	37.35	24.50	37.05
Cotton compresses	1927	56.2	55.9	56.2	.316	.132	.311	17.76	7.38	17.50
Cotton gins	1927	66.2	------	66.2	.293	------	.293	19.40	------	19.40
Cottonseed-oil mills	1927	70.9	------	70.9	.240	------	.240	17.02	------	17.02
Dry cell batteries	1927	49.5	49.3	49.4	.541	.416	.492	26.78	20.51	24.30
Storage batteries	1927	48.6	49.2	48.6	.698	.392	.691	33.92	19.29	33.58
Motors, 1 h. p. or less	1927	48.9	48.0	48.6	.642	.429	.586	31.39	20.59	28.48
Aluminum, brass, and copper wares	1927	52.2	52.6	52.3	.579	.355	.513	30.22	18.67	26.83
Brass and copper sheet, rod, tube, wire, and shape mills	1927	51.1	50.1	51.0	.556	.348	.552	29.91	19.04	29.70
Radio:										
Receiving sets	1927	48.5	48.3	48.4	.590	.384	.508	28.62	18.55	24.59
Speakers	1927	48.4	46.8	47.8	.555	.399	.502	26.86	18.67	24.00
Tubes	1927	48.9	48.5	48.6	.602	.407	.444	29.44	19.74	21.58
Hawaii										
Building construction	1929	49.6	------	49.6	.506	------	.506	25.10	------	25.10
Coffee mills	1930	55.3	55.0	55.1	.307	.141	.213	16.98	7.76	11.74
Dairies	1930	66.4	------	66.4	.299	------	.299	19.85	------	19.85
Dry docks	1929	45.0	------	45.0	.578	------	.578	26.01	------	26.01
Electricity—manufacture and distribution	1930	45.1	------	45.1	.707	------	.707	31.89	------	31.89
Foundries	1929	44.0	------	44.0	.649	------	.649	28.56	------	28.56
Gas—manufacturing and distribution	1930	48.0	------	48.0	.478	------	.478	22.94	------	22.94
Longshore labor	1929	54.0	------	54.0	.468	------	.468	25.27	------	25.27
Machine shops	1929	44.0	------	44.0	.685	------	.685	30.14	------	30.14
Overalls and shirt manufacturing	1930	45.2	45.2	45.2	.174	.307	.298	7.86	13.88	13.47
Printing and publishing, newspaper and book and job	1930	44.0	44.0	44.0	.915	.378	.857	40.26	16.63	37.71
Road building	1929	49.3	------	49.3	.506	------	.506	24.95	------	24.95
Slaughtering and meat packing	1930	51.0	------	51.0	.347	------	.347	17.70	------	17.70
Steam laundries	1930	54.0	54.0	54.0	.416	.190	.272	22.46	10.26	14.69
Steam railways	1929	51.1	------	51.1	.446	------	.446	22.79	------	22.79
Stock raising	1929	53.0	------	53.0	.275	------	.275	14.58	------	14.58
Street railways	1930	52.5	------	52.5	.544	------	.544	26.62	------	26.62
Tin-can manufacturing	1929	60.0	60.0	60.0	.401	.243	.373	24.06	14.58	22.38
Pineapple canneries	1929	60.0	60.0	60.0	.271	.168	.224	16.26	10.08	13.44
Pineapple plantations	1929	60.0	60.0	60.0	[3].227	[3].116	[3].225	[3]13.62	[3]6.96	[3]13.50
Sugar plantations	1929	(4)	(4)	(4)	[5]1.84	[5]1.30	[6]1.82	[7]11.04	[7]7.80	[8]10.92

[1] Not reported.
[2] Actual hours of time workers and time at face (including time for lunch) for tonnage men have been used in the computation.
[3] At basic rates and with bonus, but not including perquisites. (See note 5.)
[4] Range according to kind of work, from 33 to 72—average not computed.
[5] Per day for adults, including basic rates and bonus, but not including perquisites (rental value of houses, value of fuel, water, medical and hospital service for sickness or accidental injury of any kind) furnished to employees by plantations without any charge to employees. The value was estimated at $28 per month or $1 per day.
[6] Per day for adults and minors combined; minors earned an average of 98 cents per day.
[7] For adults but not including perquisites. (See note 5.)
[8] For adults and minors; average for minors, $5.88 per week.

TABLE 2.—AVERAGE HOURS AND EARNINGS, BY INDUSTRY AND SPECIFIED YEARS, 1914 TO 1930

Industry	Year	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week
Boots and shoes	1914	54.7	$0.243	$13.26
	1916	54.6	.259	14.11
	1918	52.3	.336	17.54
	1920	48.6	.559	26.97
	1922	48.7	.501	24.45
	1924	49.0	.516	25.28
	1926	49.0	.528	25.87
	1928	49.1	.530	26.02
	1930	48.9	.510	24.94
Cotton goods	1914	56.8	.153	8.63
	1916	56.9	.179	10.08
	1918	56.0	.267	14.95
	1920	51.8	.480	24.86
	1922	52.8	.330	17.42
	1924	53.0	.372	19.72
	1926	53.3	.328	17.48
	1928	53.4	.324	17.30
	1930	53.4	.325	17.36
Hosiery and underwear	1914	54.8	.172	9.44
	1922	51.0	.354	18.05
	1924	50.7	.409	20.74
	1926	51.3	.443	22.73
	1928	51.3	.444	22.78
	1930	51.6	.455	23.48
Iron and steel	1914	64.9	.301	18.60
	1915	65.5	.297	18.65
	1920	63.1	.745	45.65
	1922	63.2	.513	31.67
	1924	55.2	.644	35.22
	1926	54.4	.637	34.41
	1929	54.6	.674	36.48
Lumber	1921	58.0	.334	19.37
	1923	58.1	.362	21.03
	1925	58.1	.357	20.74
	1928	56.6	.371	21.00
	1930	56.5	.359	20.28
Men's clothing	1914	51.3	.256	13.06
	1919	47.9	.446	21.08
	1922	44.1	.728	31.91
	1924	44.1	.760	33.52
	1926	44.3	.750	33.23
	1928	44.0	.731	32.16
	1930	44.3	.701	31.05
Woolen and worsted goods	1914	55.0	$0.182	$10.03
	1916	54.8	.225	12.34
	1918	54.3	.342	18.57
	1920	48.3	.628	30.33
	1922	48.8	.474	23.13
	1924	49.1	.533	26.17
	1926	49.3	.491	24.21
	1928	49.3	.514	25.34
	1930	49.3	.473	23.32
Slaughtering and meat packing	1917	(1)	.262	(1)
	1921	48.4	.497	24.05
	1923	52.3	.484	25.31
	1925	50.1	.492	24.65
	1927	49.3	.501	24.70
	1929	49.2	.504	24.80
Coal, bituminous	1922	(1)	[2] .853	(1)
	1924	(1)	[2] .788	(1)
	1926	(1)	[2] .763	(1)
	1929	(1)	[2] .659	(1)
Foundries	1923	52.4	.558	29.24
	1925	51.5	.610	31.42
	1927	51.1	.624	31.89
	1929	51.0	.624	31.82
Machine shops	1923	50.8	.559	28.40
	1925	50.4	.602	30.34
	1927	50.1	.625	31.31
	1929	50.3	.638	32.09
Motor vehicles	1922	50.1	.657	32.92
	1925	50.3	.723	36.37
	1928	49.4	.750	37.05
Automobile tires	1919	(1)	[3] .622	(1)
	1923	49.5	.722	35.74
Coal, anthracite	1922	(1)	[4] .795	(1)
	1924	(1)	[4] .915	(1)
Furniture	1915	[3] 57.4	[3] .214	[3] 12.24
	1929	51.9	.490	25.43
Paper box-board	1919	(1)	[3] .275	(1)
	1925	54.3	.517	28.07
Paper and pulp	1919	(1)	[3] .442	(1)
	1923	[3] 51.6	[3] .504	[3] 25.98
Pottery	1919	(1)	[3] .536	(1)
	1925	(1)	[3] .581	(1)

[1] Not reported.
[2] Actual hours of time workers and time at face (including time for lunch) for tonnage men have been used in the computation.
[3] Computed from averages shown in bulletin.
[4] Actual hours worked exclusive of lunch time used in the computations.

Recent Changes in Wages and Hours of Labor

INFORMATION received by the bureau regarding wage changes is presented below in two groups, part 1 relating to manufacturing establishments that report monthly figures regarding volume of employment, and part 2 presenting data obtained from new trade agreements and other miscellaneous sources. Although the effort is made, it is not always possible to avoid duplication of data as between parts 1 and 2.

Part 1. Wage-Rate Changes in Manufacturing Industries

FIVE establishments in five industries reported wage-rate *increases* during the month ending March 15. These increases, averaging 5.8 per cent, affected 178 employees or 10 per cent of all employees in the establishments concerned.

One hundred and seventy-five establishments in 38 industries reported wage-rate *decreases* during the same period. These decreases, averaging 10.3 per cent, affected 22,502 employees or 81 per cent of all employees in the establishments concerned.

WAGE ADJUSTMENTS OCCURRING BETWEEN FEBRUARY 15 AND MARCH 15, 1931

Industry	Establishments		Per cent of increase or decrease in wage rate		Employees affected		
	Total number reporting employment and pay roll	Number reporting increase or decrease in wage rates	Range	Average	Total number	Per cent of employees	
						In establishments reporting increase or decrease in wage rates	In all establishments reporting
			Increases				
Hardware	72	1	22.0	22.0	27	13	(1)
Boots and shoes	298	1	10.0	10.0	16	5	(1)
Printing, book and job	596	1	1.0	1.0	110	11	(1)
Fertilizers	208	1	6.0	6.0	12	18	(1)
Petroleum refining	100	1	8.0	8.0	13	8	(1)
Total		5	1.0–22.0	5.8	178	10	
			Decreases				
Slaughtering and meat packing	214	4	8.0–15.0	11.2	97	45	(1)
Confectionery	329	5	10.0–15.0	11.0	209	98	1
Flour	400	2	10.0–16.7	13.8	16	31	(1)
Baking	707	9	3.2–15.0	10.1	154	37	(1)
Cotton goods	444	11	5.0–20.0	11.9	1,789	70	1
Hosiery and knit goods	350	12	1.0–20.0	9.4	2,095	86	2
Silk goods	262	2	10.0	10.0	237	96	(1)
Woolen and worsted goods	183	3	7.0–10.0	9.6	471	95	1
Carpets and rugs	30	2	10.0	10.0	1,217	91	7
Dyeing and finishing textiles	116	2	7.5–10.0	8.3	231	24	1
Clothing, men's	342	1	8.0	8.0	58	54	(1)
Shirts and collars	103	1	10.0	10.0	86	100	1
Iron and steel	190	4	3.0–20.0	10.5	4,503	86	2
Structural-iron work	174	8	8.0–15.0	10.2	940	69	4
Foundry and machine-shop products	1,082	10	5.6–20.0	9.2	796	99	(1)
Hardware	72	5	8.5–10.0	10.0	358	54	2
Machine tools	148	2	10.0–15.0	11.8	74	100	(1)
Steam fittings and steam and hot-water heating apparatus	108	1	10.0	10.0	328	100	1
Stoves	136	2	10.0	10.0	79	75	(1)
Lumber, sawmills	651	18	5.0–20.0	10.8	2,317	100	3
Lumber, millwork	341	9	5.0–15.0	8.8	508	81	2
Furniture	451	14	10.0–20.0	11.4	1,137	82	2
Leather	131	3	10.0	10.0	261	100	1
Boots and shoes	298	2	10.0	10.0	710	99	1
Paper boxes	313	7	5.0–10.0	9.2	694	98	1
Printing, book and job	596	3	10.0	10.0	33	37	(1)
Printing, newspapers	445	1	11.1	11.1	36	88	(1)
Fertilizers	208	1	30.0	30.0	10	50	(1)
Cement	112	2	10.0	10.0	139	100	1
Brick, tile, and terra cotta	690	13	5.0–25.0	11.6	1,077	99	4
Pottery	115	4	10.0–11.0	10.3	214	81	1
Glass	143	1	10.0	10.0	55	73	(1)
Brass, bronze, and copper products	160	1	10.0	10.0	85	100	(1)
Agricultural implements	84	1	10.0	10.0	15	100	(1)
Electrical machinery, apparatus, and supplies	211	2	10.0	10.0	1,146	83	1
Pianos and organs	64	2	10.0	10.0	52	87	(1)
Paint and varnish	262	2	5.0–10.0	9.2	152	38	1
Rubber goods, other than boots, shoes, tires, and inner tubes	79	3	10.0	10.0	123	37	1
Total		175	1.0–30.0	10.3	22,502	81	

[1] Less than one-half of 1 per cent.

Thirty-four of the wage-rate *decreases* were reported by establishments in the textile group of industries; 32 of the *decreases* were in the iron and steel group of industries; 41 *decreases* were in the lumber group of industries.

Part 2. Wage Changes Reported by Trade-Unions Since January, 1931

WAGE and hour changes reported by trade-unions are given in the table following. Since last month, changes occurring since January have been reported for 9,492 workers, 3,950 of whom were reported to have adopted the 5-day week. Of the changes in wages shown, 451 workers received reductions.

RECENT WAGE CHANGES, BY INDUSTRY, OCCUPATION, AND LOCALITY, JANUARY TO APRIL, 1931

Industry or occupation, and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
Building trades:					
Bricklayers and masons—		*Per hour*	*Per hour*		
Rochester, N. Y.	Apr. 1	$1.50	$1.58⅓	40	40
Syracuse, N. Y.	Jan. 1	1.50	1.65	44	40
Wheeling, W. Va., and vicinity (including tile setters)	Apr. 1	1.50	1.50	44	40
Carpenters, Denison, Tex.	Mar. 1	1.00	.87½	44	40
Electricians—					
Denison, Tex.	do	.93¾	.81¼	44	40
Monongahela Valley, Pa.	do	1.37½	1.12½	44	44
Rockland County, N. Y.—					
Journeymen	Apr. 1	1.53¾	1.62½	40	40
Helpers	do	.81¼	.87½	40	40
Engineers, Harrisburg, Ill.	Jan. 15	.75	1.00	[1] 12	[1] 8
Laborers, Bisbee, Ariz.	Jan. 12	.37½	.43¾	(2)	(2)
Lathers, wood and wire, Syracuse, N. Y.	Jan. 1	1.50	1.65	44	40
Painters, Denison, Tex.	Mar. 1	1.00	.87½	44	40
Plasterers, Rochester, N. Y.	Apr. 1	1.50	1.58⅓	40	40
Plumbers—					
Denison, Tex.	Mar. 1	1.25	1.12½	44	40
Monongahela Valley, Pa.	do	1.25	1.12½	44	44
Sheet-metal workers—					
Denison, Tex.	do	1.00	.87½	44	40
Monongahela Valley, Pa.	do	1.43¾	1.12½	44	44
Structural-iron workers, Auburn, Ithaca, Oswego, Syracuse, and Watertown, N. Y.	Jan. 1	1.37½	1.50	44	40
Tile and marble setters' helpers, Tulsa, Okla.	Jan. 20	.62½	.68¾	(2)	(2)
All building-trades workers, Springfield, Mass., and vicinity	Apr. 1	(2)	(3)	44	40
Metal trades: Metal polishers and buffers, Belleville, Ill.	Jan. 1	(2)	(4)	[1] 8	[1] 8
		Per day	*Per day*		
Miners, New Kensington, Pa.	do	$3.60	$3.00	(5)	(5)
Printing trades:		*Per week*	*Per week*		
Bindery workers, New York, N. Y.	Apr. 2	(2)	(2)	46	45
Compositors—					
New Rochelle, N. Y.—					
Job work, day	Apr. 1	51.00	52.00	44	44
Job work, night	do	54.00–57.00	55.00–58.00	40	40
Springfield, Ill.—					
Job work	Jan. 31	(3)	(2)	44	[6] 40
Newspaper	do	(3)	(2)	48	[6] 40
Stereotypers, Mobile, Ala.—					
Newspaper, day	Apr. 29	43.00	43.50	48	48
Newspaper, night	do	44.00	44.50	48	48
Street railway workers: Motormen and conductors, Pittsburgh, Pa., and vicinity	Apr. 1	*Per hour* $0.70–$0.80	*Per hour* (3)	[7] 7	[7] 6
Municipal workers:		*Per month*	*Per month*		
Oakdale, Calif., Oakdale irrigation district	do	$135–$175	$126–$157.50	(2)	(3)
Tuscaloosa County, Ala., rural school teachers	Mar. 1	120.00	96.00	30	30

[1] Per day.
[2] Not reported.
[3] No change.
[4] 12½ per cent reduction.
[5] Irregular.
[6] Emergency measure.
[7] Days per week.

Increases in building trades were quite irregular in amount, ranging from 6¼ cents to 25 cents per hour. Among the printing trades the increases amounted to 50 cents and $1 per week.

Farm Wage and Labor Situation on April 1, 1931

A FURTHER drop in farm wages took place between January 1 and April 1. Figures issued by the United States Department of Agriculture show that on April 1 the index was 127 per cent of the pre-war level as compared with 129 per cent on January 1. The figure for April 1, 1931, is 35 points lower than on April 1, 1930, and is the lowest for any date since 1916.

Table 1, taken from a press release of the Department of Agriculture, dated April 10, 1931, gives average daily and monthly farm wage rates, with board and without board, by geographic divisions and for the country as a whole, on January 1 and April 1 of 1930 and 1931. The Labor Review for April, 1931, carried (p. 186) average yearly farm wage rates and index numbers for the years 1910 to 1930, and quarterly data from January, 1923, to January, 1931.

TABLE 1.—AVERAGE FARM WAGE RATES, AND INDEX NUMBERS, ON JANUARY 1 AND APRIL 1, 1930 AND 1931

Division	Annual average, 1910–1914	January, 1930	April, 1930	January, 1931	April, 1931
United States: Index of farm wages	100	159	162	129	127
	Per month with board				
United States	$20.41	$32.29	$33.83	$26.03	$25.96
North Atlantic	22.63	44.57	45.05	36.59	35.86
North Central	24.88	36.24	40.21	28.56	31.28
South Atlantic	14.65	23.28	23.30	19.53	17.50
South Central	16.18	24.75	24.71	19.34	17.88
Far Western	32.89	50.66	53.99	42.65	43.07
	Per month without board				
United States	29.09	46.80	47.81	39.04	38.37
North Atlantic	34.31	67.46	67.23	58.65	56.86
North Central	34.61	51.20	54.34	42.29	43.96
South Atlantic	20.96	34.12	33.88	28.93	26.44
South Central	23.07	35.53	35.30	28.69	26.64
Far Western	47.14	75.10	77.27	63.73	65.02
	Per day with board				
United States	1.10	1.73	1.72	1.38	1.33
North Atlantic	1.24	2.55	2.55	2.19	2.11
North Central	1.38	2.08	2.11	1.62	1.61
South Atlantic	.81	1.24	1.20	1.00	.90
South Central	.90	1.23	1.22	.95	.89
Far Western	1.50	2.38	2.39	1.98	1.96
	Per day without board				
United States	1.43	2.27	2.27	1.87	1.80
North Atlantic	1.64	3.31	3.38	2.99	2.86
North Central	1.76	2.74	2.78	2.21	2.19
South Atlantic	1.05	1.62	1.57	1.37	1.23
South Central	1.16	1.63	1.60	1.25	1.16
Far Western	2.05	3.19	3.22	2.75	2.73

Table 2 shows the farm labor supply and demand on April 1, 1931, as compared with April 1, 1930, for the country as a whole and by geographic divisions:

TABLE 2.—FARM LABOR SUPPLY AND DEMAND ON APRIL 1, 1930 AND 1931

Division	Supply, per cent of normal		Demand, per cent of normal		Supply as percentage of demand	
	April, 1930	April, 1931	April, 1930	April, 1931	April, 1930	April, 1931
United States	99.0	112.9	84.8	71.1	116.8	158.8
North Atlantic	98.3	111.5	86.9	79.0	113.2	141.1
North Central	101.1	115.4	85.8	73.4	117.9	157.2
South Atlantic	96.8	108.9	84.6	72.4	114.4	150.4
South Central	97.0	111.4	82.7	65.1	117.3	171.1
Far Western	104.5	119.6	86.4	72.9	120.8	164.1

The comments of the Department of Agriculture in regard to the farm wage and labor situation on April 1, as given in the press release, are quoted below:

At 127 per cent of the pre-war level on April 1, the index of farm wages was 2 points lower than at the beginning of the year, 35 points under a year ago, and at the lowest level recorded since 1916.

The 2-point decline in the index from January 1 to April 1 was most unusual since it occurred during a period when farm wages ordinarily advance, due to the increase in demand for workers during the spring planting season. This seasonal advance averaged 4.7 points for the period, 1926–1930. During the current year farm wages showed a tendency to advance or hold steady only in that area north of a line extending from the southern boundary of Nebraska to the southern boundary of Michigan and in the northern half of the far western division.

All classes of farm wages, on April 1, were lower than a year ago. Wages per day, without board, were about 28 per cent lower in the South Central States, down 22 per cent in the South Atlantic division, 21 per cent in the North Central group, and approximately 15 per cent in the North Atlantic and far western divisions. These declines are due to the considerably lower level of industrial employment which has increased materially the supply of farm workers and the sharp decline in demand resulting from the drastic drop in prices paid farmers for agricultural products.

Crop correspondents reported the supply of farm labor at 112.9 per cent of normal on April 1 as compared with 99 a year earlier, while the reports on demand averaged 71.1 per cent of normal in comparison with 84.8 per cent on April 1, 1930. Expressing the supply as a percentage of the demand for the two dates, a figure of 158.8 is obtained for April 1 as compared with 116.8 per cent a year ago.

Reporting Time and Minimum Pay in Collective Agreements [1]

A LARGE number of collective agreements provide pay for reporting time when a hired member reports at the regular starting time but is not put to work; or when he has not been notified at close of one day's work that he will not be needed the next day and reports to find that there is a lay off or that he is discharged. Many agreements specify, also, the minimum number of hours' work to be paid for when a member reports for work and is given but a fraction of a day's work. This provision is seldom invoked, however, when bad weather makes work impossible. The time paid for reporting when no work is given varies from one hour to one day. The minimum pay for a fractional part of a day's work varies from two hours to one day.

[1] This is one of a series of articles giving the results o a topical analysis of the collective agreements received by the Bureau of Labor Statistics.

Conversely, the right of an employer to the time of a member who promises to report or is ordered to report for work at the shop or on a job is recognized by a number of the trade-unions, and the agreements contain provisions to prevent loss to the employer, under these circumstances, by the assessment of fines ranging from $1 to $25, or from one hour's pay to a full day's pay, against the offending member. In a few cases the fine is paid by the union to the employer, in other cases the employer is given the right to deduct the amount of the fine from the member's wages.

The following are a few of the provisions taken from about 800 trade agreements having one or both of these provisions—pay for reporting time or minimum pay for any fraction of a day's work:

Bakery and confectionery workers.—If member is not notified at the end of the week of his discharge and he reports for work the following week, he shall receive a day's pay, and if compelled to work for the day he must be allowed to finish the week.

Baker shall receive a full day's pay for eight hours' work or less.

Journeyman barbers.—Any employer hiring a barber to work on Saturday and discharging him without reasonable cause shall pay him $6. Any member who accepts a Saturday job from the secretary of this union and fails to fill same, shall be fined $6, the same to be turned over to the proprietor who employed him.

A barber hired for broken or split shifts must be paid for a full day.

Brewery and soft-drink workers.—Four hours at time and one-half shall be minimum pay for holiday work.

Helpers shall not be hired for less than a day.

Brick makers.—Men reporting for work in the morning when ordered to report by the manufacturer shall be allowed two hours' time.

All men employed on days when the yard is not in operation shall be employed for at least four hours.

Bricklayers, masons, and plasterers.—Member hired and not placed at work after reporting with his tools shall be paid two hours' time.

Any member given an identification card and sent to a job and does not report for work shall be called for trial before the joint board. Unless member has a reasonable excuse he shall be fined $5 and such fine shall be paid into the treasury of joint executive committee.

Member shall not be laid off before 12 noon or before quitting time unless weather conditions prohibit work—minimum pay four hours' time.

Carpenters and joiners.—When member is engaged and is refused work upon arriving with his tools, he shall be paid for four hours' time if the weather conditions permit work.

Any member failing to report for work after agreeing to do so shall be fined two hours' pay, unless he has a good excuse.

If member works less than four hours, he shall be paid for four hours' time; if he works more than four hours he shall be paid for eight hours.

Cement finishers.—A member ordered to report and not given work shall be paid for two hours' time.

Member failing to report on order by 10 a. m. will be fined $10 by the local union and the amount will be turned over to the contractor to reimburse him for any loss sustained by failure of the member to report.

Member hired and starts work must be paid for at least four hours' time if weather permits work.

Electrical workers.—A member ordered to report and not put to work shall receive at least one-half day's pay.

In no case shall a member be employed for less than a half day.

Hoisting and portable engineers.—Engineer on broken time reporting for regular shift unless told previous day not to report shall receive four hours' pay for reporting. Engineers reporting for second or third shift shall receive a full day's pay.

Engineers beginning a day's work shall be paid for full day.

Hod carriers and building laborers.—Member ordered to report for work and not put to work shall be paid for two hours' time. Failure of member to report when sent to job by the business agent, he shall be fined two hours' pay.

Member shall be paid not less than two hours' pay in any one day.

Lathers.—When a member through no fault of his own can not go to work after reporting he shall charge for four hours' time, but must remain on the job for the four hours.

Operative plasterers.—Member hired and not put to work shall be paid for four hours' time if no valid reason is given.

A member failing to report after promising business agent to do so shall be fined two hours' pay.

Members must not accept less than two hours' pay in any day.

Painters, decorators, and paper hangers.—Men ordered to report for work and not put to work shall be paid for one-half day. Any man failing to report after promising to do so shall be fined four hours' pay, unless the failure to report was caused by sickness.

A member employed for a fractional part of a day must be paid for at least four hours' time.

Plumbers and gas fitters.—Any member who reports for work, not being notified the night before, shall receive one-fourth of a day's pay.

Any member quitting a job without notifying his employer the night before shall forfeit one-half of a day's pay.

Member must not accept less than four hours' pay, except on new construction work stopped by weather conditions.

Sheet-metal workers.—A member reporting for work before 8 a. m. shall be allowed four hours' pay for same, providing weather conditions are favorable for outside work.

A member laid off or discharged after starting time morning or noon shall be paid for a full day.

Sign writers.—Members not receiving previous notice of lay-off who report for work at 8 a. m. shall be paid for the full day, regardless of weather conditions.

No member shall work a fractional part of a day.

Slate, tile, and composition roofers.—Any member reporting promptly for work and not put to work for any reason except weather conditions shall receive three hours' pay for same. Any member who fails to report for work without timely notice to employer or to the business agent of the union shall be fined $10 for the first offense and $25 for subsequent offenses.

Member shall not accept less than two hours' pay in any day.

Sprinkler fitters.—Any member who reports for work in the morning and the foreman lays him off then instead of the night before shall receive one-half day's pay for the same.

Any member working a fraction of a half day shall accept not less than a half day's wages. Any member working over four hours in any day shall accept not less than one full day's pay.

Structural and ornamental iron workers.—Except where weather conditions prohibit work, men ordered to report and not put to work shall be paid for two hours' time.

If member is put to work he shall be paid for not less than four hours' time.

Ladies' garment workers.—All workers required to come to shop in dull seasons shall be secured at least one-half day's pay—such half day to begin at 8 a. m. or 1 p. m.

Journeyman tailors.—Any tailor or helper not wanted the following day must be notified to that effect the day before. Failure on the part of the employer or foreman to do so, the employer must pay the employee for one-half day. Employee must notify the foreman if he does not intend to work the next day, in order that the work may not be disturbed.

Any employee laid off during either half of the day shall be paid for a full half day.

Cleaners, dyers, and pressers.—A member asked to report shall receive a full day's pay if he reports at starting time.

Glass-bottle workers.—The wages for a shop working daywork shall be the same as the average daily wage of the same shop for the previous day but in no case shall the workman receive less than $6.50 per day.

Hotel and restaurant employees.—If a member reports and finds another in his place without having been notified of discharge he shall be entitled to pay for that shift.

If a member fails to report or quits before the end of the shift without being properly relieved, he shall forfeit one day's pay.

Laundry workers.—An employee who reports for duty at the usual hour and is not put to work shall be paid for two hours' time.

No girl shall receive less than a full day's pay for any day, unless time lost is through her own fault, when she will forfeit the actual time lost.

Longshoremen.—Men ordered to report for work shall be paid for two hours' time at the prevailing rate whether they begin work or not. Sundays and holidays they shall be paid four hours' time. If prevented from working by weather conditions they shall receive no pay.

Men beginning work and laid off, each of the gang shall be given two hours' pay.

Masters, mates, and pilots.—Masters, mates, and pilots shall receive for a day or any fraction of a day a full day's pay for relieving or for emergency calls.

Meat cutters.—Where extra men are employed they shall receive a full day's pay for eight hours or a fraction thereof.

Blacksmiths, drop forgers, and helpers.—Any member being transferred on reporting for work shall receive no less than two hours' pay for same.

Boiler makers and iron-ship builders.—Men who report for work and are not put to work shall be paid for two hours' time as recompense.

All men working after 10 a. m. or 3 p. m. shall be paid for four hours and eight hours, respectively.

Machinists.—Men employed and failing to procure said employment on reporting will be paid for two hours' time—men must remain on the job two hours unless released by the foremen.

Photo-engravers.—No employee shall be laid off between starting time and noon, or between noon and quitting time. (Book and job office.)

Not less than a full day's or night's work for any member unless through illness or excused on own request. (Newspaper office.)

Printing pressmen.—Any member hired and not put to work, except for incompetency or inability to perform his duties, shall be paid a day's or a night's pay for the shift he was hired for.

When members engage to take employment in any office and fail to respond for work at the time agreed upon without having been excused by the foreman of said position, or when any member shall leave his position without due notice, the union shall reimburse the employer at the rate of $4.50 per hour for the time lost on the press or presses the member was engaged to work on for that day or night, based on the regular working hours of the shift.

No journeyman or apprentice shall receive less than a day's or night's pay after being put to work.

Stereotypers and electrotypers.—A member called in to work after the schedule time to begin work shall receive a full day's pay for same and if required to work overtime the overtime rate shall start at the hour named for ceasing work.

Typographical workers.—Should employees not be notified the night previous to being laid off and show up for work they shall be paid one-half day's pay.

Any member failing to fulfill an engagement shall, on conviction, be fined the sum of $25.

In no case shall a member receive less than a day's pay for working until the usual quitting time.

Bookbinders.—Member not notified night previous of lay off and reports for work shall be paid one-half day's or night's pay.

In no case shall a journeyman receive less than a day's pay.

Mailers.—Employer may call upon union for part-time men and shall guarantee such men not less than five hours' work, day schedule, and not less than four hours at night schedule.

Railway and steamship clerks.—Employees required to report at the regular starting time and prevented from performing service by conditions beyond the control of the company will be paid for actual time held, with a minimum of two hours.

If employee works any portion of the day up to four hours he shall be paid for four hours' time. If he works in excess of four hours he shall be paid for eight hours.

Shopmen.—Men called to report and not used shall be paid four hours' straight time.

Men reporting and put to work will be allowed a minimum of four hours' pay for two hours or less of work.

Railroad signalmen.—Employee called to perform work not continuous with his regular work will be allowed three hours' pay for two hours or less.

Railway maintenance-of-way employees.—Member required to report at usual time and place and prevented from performing any service shall be allowed a minimum of three hours' pay.

Railroad trainmen.—Members required to report at starting time and prevented from working a full day, through no fault of their own, shall be paid for eight hours' time.

Stonecutters.—A member hired and reports with his tools and refused work shall be paid for one day's work.

No member shall be given less than one day's work.

Street-railway employees.—When men report at regular station and are then required to report to another station they shall be paid for time going to and returning from such other station, and if not receiving work at the other station they shall be paid for an eight-hour day which shall include time going to and returning from their regular station.

Members shall be guaranteed a minimum of eight hours' pay a day.

Teamsters and chauffeurs.—Any regular employee who reports at station any week day morning for work, not being notified the evening before of lay off, shall receive a half day's pay.

If a member fails to report for work and does not notify employer before 7 a. m. he is guilty of neglect of duty. If employer suffers loss through the team not being used the member subjects himself to forfeiture of $4 per day, or $2 per half day.

Any member starting work shall be paid for not less than 5 hours' time.

Upholstery workers.—When a member is required to report and is then dismissed or laid off she shall be paid for one-half day.

When a member starts work at 8 a. m. and is laid off through no fault of her own she shall be paid for the full day.

Testing the Adequacy of Wages

THE University of Pennsylvania has recently published the results of a study undertaken to find some method or device for testing the adequacy of individual employee earnings to maintain a typical worker and his family.[1] The study covers the wage records from 1901 to 1929 of a group of workers employed by the Leeds & Northrup Co., of Philadelphia, manufacturers of electrical measuring equipment. It is part of a more comprehensive investigation of wage setting and promotion which will require several years for completion.

Wages are viewed as being at the heart of the employer-employee relation by the authors. They point out that the amount of the pay envelope determines very largely the status of the worker, both in relation to the worker next to him and to his job, affecting his efficiency and his physical and mental well-being. As developed, the study consists of two parts: (1) The development of a standard of measurement; and (2) the perfection of a technique for comparing the annual earnings of each employee with that standard.

In developing a standard of measurement it was necessary to determine what constitutes a suitable wage and what the needs of a typical worker actually are. As the needs of the worker vary with family responsibility, and family responsibility was found to be definitely related to age and length of service, the investigation was carried on in such a way as to reckon with these factors. Cost-of-living budgets were found to be of practical use in determining the worker's minimum requirements. But throughout, the writers stress the fact that they believe the compensation of workers should be based upon their productivity rather than their need and that "society has an obligation to those who can not find work for which they are suited or who for other reasons can not earn enough to meet their needs, but this obligation does not rest on industry as such."

[1] Leeds, Morris E., and Balderston, C. Canby. Wages—a means of testing their adequacy. Philadelphia, University of Pennsylvania Press, 1931. (Research studies XI, Industrial Research Department, Wharton School of Finance and Commerce, University of Pennsylvania.)

The steps used in developing a standard of measurement and a method of applying it are presented here briefly.

Changing Conceptions of Wage Levels

ATTENTION is called to the fact that changes have taken place in conceptions of wage adequacy. Following a wage-fixing system based on supply and demand, labor succeeded in securing wages taking cost of living into account. As time went on it was brought out that a mere living wage was not sufficient for American workmen, that they must be paid enough to allow them to satisfy their physical, social, and cultural requirements. It has also been argued that wages should be advanced in accordance with increased productive efficiency.

As matters now stand, a case is being presented for the social wage under which the wage earners, who in the nature of things must be consumers as well as producers, would receive a sufficiently large return for their work to enable them to buy the increasing quantity of goods that their greater productivity makes available. This wage theory is supported in the study under review and is discussed as follows:

> It is our assumption that the social wage is desirable. Our task is not to prove or disprove this hypothesis but to experiment with the possibility of putting it into practice. No economist has determined in dollars and cents the social wage for various classes of work and we shall not attempt that formidable task. Our approach will be to assume that for each class of worker some standard wage can be determined which is certainly below the social wage and which therefore can be taken as a minimum below which the rate of no worker properly adapted to his job should fall. The average normal well-trained worker should receive pay well above this. For this minimum we have chosen the standard of "health and decency."

Relation of Size of Family to Age and Service

IT IS brought out that the expenses of a man do not grow at an even rate as he becomes older. They increase sharply when he is married and when each child is born, and as the children mature expenses again decrease. Therefore it was essential to find out at what age the typical man marries and when his children are born, if needs were to be measured.

For this purpose data concerning the family status of 298 employees (with three years' service or more) of the Leeds & Northrup Co. were secured in 1928. Of this number, 218 were men and 47 per cent were unmarried. The most typical marrying age of the 115 men who were married was found to be 26.5 years.

Of the 115 married men, 41 were childless. Nineteen of these 41 had been married for one year or less. The time selected as the most representative interval between marriage and the birth of the first child was 1.5 years; between marriage and the second child, 4.5 years; and between marriage and the third child, if any, 7.5 years. Thus the first child would be born when the father was 28, the second when he was 31, and the third when he was 34.

In order to be able to translate the budgets developed for varying ages into budgets for varying lengths of service it was sought to find out if a typical hiring age existed. It was found that while the modal age of boys hired was 16, the median age was something over 19. It was decided to accept 19 as the typical age of boys when hired, as in

this way there would be no discrimination against boys who finished high school before starting work. It is further stated that the choice between age 16 and age 19 would be more serious were it not for the fact that boys of both ages are in a different situation from older boys. That is, most of them live with their parents and do not have heavy financial responsibility. The boy at work may be said to be learning a trade at work while the other is learning at school.

On the basis of a starting age of 19, the typical man marries after 7.5 years of service, has his first child at the end of 9 years, the second at the end of 12 years, and the third at the end of 15 years. The table following shows findings with regard to age, length of service, and typical family:

SIZE OF TYPICAL FAMILY OF MALE EMPLOYEES AT VARIOUS AGES AND LENGTH OF SERVICE

Age group	Length of service (years)	Number of children	Number in family	Living conditions
16 to 18.9 years	(1)	0	1	Boarding with parents.
19 to 26.4 years	0 to 7.4	0	1	Boarding apart from family.
26.5 to 27.9 years	7.5 to 8.9	0	2	4-room house with bath.
28 to 30.9 years	9 to 11.9	1	3	Do.
31 to 33.9 years	12 to 14.9	2	4	6-room house with bath.
34 years and over	15 and over	3	5	Do.

[1] Service before 19 years of age is not counted in the graduated budgets.

Budgets Graduated According to Size of Family

SINCE most of the existing cost-of-living budgets were found to be based upon a family of five, composed of husband, wife, and three dependent children, and the majority of the employees of the Leeds & Northrup Co. did not have families of this size, it became necessary to obtain budgets better adapted to the family status of these particular workers. It was decided to choose as a standard of living what is described by the Bureau of Labor Statistics as the "standard of health and decency," which is the basis of certain available studies. This standard was chosen in preference to the standards of poverty and subsistence, which were considered unsatisfactory, and in preference to the standard described as that of "health and comfort," which was thought less definite in meaning.

Making use of available studies of cost of living and the data on size of family in the preceding table, the final maintenance budgets were computed for employees, graduated according to family size in 1927, and are here presented:

Maintenance budget, by size of family, 1927

Man, wife, and 3 children (between the ages 0–12, 3–15, and 6–18, respectively)	$2,023.34
Man, wife, and 2 children (under 6 years of age)	1,757.32
Man, wife, and 1 child (under 3 years of age)	1,452.41
Man and wife	1,289.77
Single woman (living apart from family)	858.62
Single man (living apart from family)	995.00
Single woman (living as part of a family group)	645.61
Single man (living as part of a family group)	707.63

In the study under review the method by which these maintenance budgets were arrived at is explained and the total budget is divided for each family group, showing the amount allowed for food, clothing, housing, etc. The authors warn that "Since these graduated budgets are based on the assumption that the families are those with the earnings, tastes, and requirements of skilled and semiskilled workers, they are not applicable to clerical or supervisory employees."

Since it was not practical to develop new budgets for each year, the graduated budgets were adjusted annually on the basis of the price changes of the items represented, using for this purpose the index of cost of living as shown in the Bureau of Labor Statistics index for Philadelphia.

Once graduated budgets were developed as measuring sticks, they had to be expressed in terms of a common denominator, such as age or length of service, in order to determine whether a given employee's earnings are adequate. Thus, if the typical Leeds & Northrup employee is employed at age 19, marries at 26.5, has his first child at 28, his second at 31, and his third, if any, at 34, the adequacy of his earnings may be determined by combining the factors of age and length of service with the appropriate budget representing his maintenance requirements at a given time.

Uses of Graduated Maintenance Budgets

Two methods are open by which the graduated budgets may be utilized in an attempt to measure the adequacy of earnings—a periodic "pay-roll audit" of the earnings of all employees with more than one full year of service, and a "historical study" of the earnings of an individual employee for each year since he was employed.

The first method shows the situation with regard to wage adequacy throughout the company. The second method is more costly but makes it possible to determine the effects of promotion policies or the length of time required to reach a job paying enough to enable an employee to maintain himself and his family at a standard of health and decency.

The periodic "pay-roll audit" involves a check of the pay roll, comparing the earnings of each individual with the graduated budget for a person of his particular status. By such an audit all persons earning less than the standard can be discovered so that their cases may be considered. The audit for Leeds & Northrup employees over 19 years old in 1929 showed that 11 persons received wages less than the maintenance budget requirements on the basis of an audit graduated according to length of service, and 34 received less on the basis of an audit graduated according to age.[2] It is pointed out that the company should feel greater responsibility for persons whose earnings lag on the basis of length of service than for those that show a lag on the basis of age.

[2] The relation which these numbers bear to the total is not stated.

A "historical study" of individual cases involves consideration of the entire wage history of a given employee with the Leeds & Northrup Co. Thus, year by year his earnings are compared with the maintenance budget of his class for that particular period. To show what may be learned from investigation along such lines a statement relative to the historical study of case No. 14 is quoted.

> An examination of case No. 14 shows that his earnings did not exceed his maintenance until the seventh year after employment. A sharp rise in earnings in 1918 not only gave him an excess of over $400 above the service budget, but took care of the expenses incident to his early marriage. After 1923 the service budget began to exceed his actual need. Of course, the company's obligation to provide maintenance is indicated by the service budget rather than by the actual needs. He is entitled to the same maintenance as the typical employee although his actual family requirements are less.

It is stated that during the first years of employment earnings of Leeds & Northrup Co. employees are likely to be lower than the budgets worked out for maintenance costs but that this policy might be justified for a limited time on the ground that young employees are receiving training for more lucrative jobs. Attention is further called to the fact that the working week in this particular establishment has been 44 hours since 1918, with some overtime in 1926, and that in spite of this short working week earnings of the workers whose cases were examined are probably higher than the average for skilled labor in the United States.

In conclusion it is stated that this device for measuring wage adequacy should be treated as an adjunct of a fundamental wage policy and not as the main feature of it.

Wages in the Gray-Iron Foundry Industry, February, 1931

THE average wage rates paid in the gray-iron foundry industry of the United States and Canada in February, 1931, are shown in Table 1 following. The data are from the latest wage report of the Gray Iron Institute (Inc.), Cleveland, Ohio. The total number of foundries reporting to the institute was 187, with 10,189 employees.

TABLE 1.—AVERAGE HOURLY WAGE RATES IN THE GRAY-IRON FOUNDRY INDUSTRY OF THE UNITED STATES AND CANADA, BY OCCUPATION AND DISTRICT, FEBRUARY, 1931

Occupation	Canada, New York, New Jersey, and New England States		Pennsylvania, Michigan, Ohio, Indiana, and all territory to the south, and west to Mississippi River		Wisconsin, Illinois, and all territory west of Mississippi River and south to southern border of country		All districts combined	
	Number of workers	Hourly wage rate	Number of workers	Hourly wage rate	Number of workers	Hourly wage rate	Number of workers	Hourly wage rate
Molders:								
Bench	221	$0.798	341	$0.743	262	$0.727	824	$0.753
Floor	414	.864	587	.793	422	.812	1,423	.819
Loam	22	.753	23	.809			45	.782
Machine	204	.699	632	.663	307	.650	1,143	.666
Helpers	189	.551	225	.471	132	.472	546	.497
Apprentices	47	.506	63	.561	48	.515	158	.530
Foremen	46	1.06	71	.933	51	1.02	168	.997
Core makers:								
Men	211	.818	312	.675	236	.653	759	.708
Women	5	.380	56	.420	16	.428	77	.419
Machine men			124	.590	9	.585	133	.590
Machine women			9	.443			9	.442
Helpers	34	.475	101	.417	62	.476	197	.446
Apprentices	53	.510	44	.510	37	.601	134	.536
Foremen	26	.959	37	.811	26	.915	89	.885
Pattern makers:								
Wood	132	.797	111	.706	60	.803	303	.765
Metal	30	.635	57	.734	32	.764	119	.726
Apprentices	18	.432	23	.537	14	.413	55	.472
Foremen	15	.973	13	.957	11	1.00	39	.977
Chippers	182	.558	235	.499	152	.503	569	.519
Crane operators	63	.587	78	.516	45	.553	186	.549
Cupola tenders	99	.609	157	.550	112	.577	368	.574
Flask makers	38	.672	57	.644	51	.616	146	.641
Grinders, rough	92	.525	196	.493	105	.470	393	.494
Inspectors, castings	44	.535	89	.497	53	.548	186	.521
Laborers, common	340	.506	737	.461	400	.473	1,477	.474
Maintenance men	69	.651	129	.608	77	.660	275	.633
Pourers			84	.491	42	.583	126	.522
Sand blasters	39	.498	67	.506	45	.546	151	.516
Welders:								
Acetylene	8	.671	20	.638	12	.698	40	.663
Electric	2	.675	2	.485	10	.654	14	.633
Combination			4	.677	33	.724	37	.719

Table 2 shows wage rates for a number of the more important occupations in July, 1929, February and August, 1930, and February, 1931, as given in a circular letter from the Gray Iron Institute (Inc.) dated March 11, 1931:

TABLE 2.—COMPARATIVE WAGE RATES IN SPECIFIED OCCUPATIONS IN THE GRAY-IRON FOUNDRY INDUSTRY, ON SPECIFIED DATES

Occupation	July, 1929	February, 1930	August, 1930	February, 1931
Molders:				
Bench	$0.770	$0.814	$0.798	$0.753
Floor	.892	.830	.841	.819
Loam	.653	.780	.711	.782
Machine	.729	.746	.709	.666
Core makers:				
Men	.741	.737	.714	.708
Women	.448	.439	.427	.419
Patternmakers:				
Wood	.824	.829	.847	.765
Metal	.770	.729	.767	.726
Chippers	.539	.533	.526	.519
Common laborers	.477	.484	.471	.474

The number of plants paying specified rates for overtime work after stated periods is shown in Table 3. Of the total of 187 plants, 50 reported that no overtime was worked, 2 did not pay for overtime, and 27 did not report on this point. In 51 plants no work is done on Sundays or holidays, 3 do not pay for overtime work on these days, and 2 pay a 2-hour bonus; 25 did not report on Sunday and holiday work.

TABLE 3.—NUMBER OF FOUNDRIES PAYING SPECIFIED RATES FOR OVERTIME WORK AFTER STATED PERIODS

Item	Number of foundries paying—			
	Straight time	Time and a quarter	Time and a half	Double time
Overtime:				
After—				
8 hours	14		36	1
8½ hours	1		1	
8¾ hours			1	
9 hours	24	2	15	
9½ hours			4	
10 hours	1	4	4	
Sundays and holidays	40	2	37	27

Hours of labor.—Seventy-eight of the foundries had an 8-hour day, 80 a 9-hour day, and 13 a 10-hour day, the workday of the remaining 16 plants, with the exception of 3 which did not report on hours, ranging from 7½ to 10.

The check system of wage payment was used by 138 of the 187 plants and 48 paid in cash. One plant did not report on this point.

Wages in Minnesota in 1929 and 1930, as Shown in Accident Reports

THE accompanying wage statistics for the fiscal years ending June 30, 1929, and June 30, 1930, are reproduced from a more extensive table published in the fifth biennial report of the Industrial Commission of Minnesota covering that biennial period:

AVERAGE WEEKLY WAGES IN VARIOUS INDUSTRIES IN MINNESOTA, AS SHOWN BY ACCIDENT REPORTS, FOR THE YEARS ENDING JUNE 30, 1929, AND JUNE 30, 1930

Industry	Year ending June 30, 1929		Year ending June 30, 1930	
	Number of cases filed	Average weekly wages	Number of cases filed	Average weekly wages
Farming	494	$25.37	424	$23.83
Operating agricultural machinery	291	26.27	141	29.04
Mining	917	30.80	1,167	31.90
Quarrying	135	28.53	229	29.44
Stone products	1,214	30.48	1,042	30.50
Clay products	81	26.57	43	25.84
Brick and tile	59	27.47	103	28.18
Glass products	57	31.12	53	29.72
Ore reduction and smelting	41	28.10	19	28.90
Rolling mills and steel works	99	29.54	48	31.31
Structural iron and steel	1		47	37.32
Metal products	2,827	26.95	1,918	27.78
Foundries	511	27.54	883	27.55

AVERAGE WEEKLY WAGES IN VARIOUS INDUSTRIES IN MINNESOTA, AS SHOWN BY ACCIDENT REPORTS, FOR THE YEARS ENDING JUNE 30, 1929, AND JUNE 30, 1930—Continued

Industry	Year ending June 30, 1929		Year ending June 30, 1930	
	Number of cases filed	Average weekly wages	Number of cases filed	Average weekly wages
Machinery and instruments	2,115	$27.86	2,578	$28.05
Agricultural machinery and implements	318	26.43	255	28.20
Vehicles	544	28.94	433	29.92
Logging	1,768	21.95	981	20.65
Sawmills	306	25.64	285	25.38
Planing and lath mills	128	28.30	270	26.88
Woodworking (including furniture)	1,481	24.37	1,202	24.90
Leather and fur	106	23.90	141	25.87
Boots and shoes	101	23.88	66	22.99
Rubber and composition goods	143	26.12	139	27.59
Chemicals and allied products	806	26.75	828	27.20
Paper, paper products (including pulp mills)	1,238	25.71	1,066	26.22
Printing and publishing	929	26.92	844	29.41
Textiles	263	21.87	280	23.68
Clothing and furnishings	408	22.89	459	21.76
Laundering, cleaning, and dyeing	416	23.43	420	23.00
Flour and grist mills	634	26.89	594	28.34
Bakeries	585	25.21	512	26.48
Dairy products	457	30.47	943	29.37
Slaughtering and meat packing	1,212	25.34	1,425	25.27
Brewing and bottling	216	26.66	244	26.85
Other food products	1,407	26.94	1,040	26.09
Miscellaneous manufacturing	129	27.76	153	24.54
Wrecking and moving	159	23.86	86	26.49
Grading, excavating, and foundations	858	29.23	1,177	29.50
Erecting	3,532	31.52	4,129	33.22
Finishing, equipping, and installing	1,407	35.28	1,563	36.98
Electric railways	277	25.23	287	26.02
Bus and truck lines	137	30.98	186	30.89
Garages	2,296	30.62	2,316	30.42
Grain elevators	221	29.36	248	30.18
Cartage and storage	2,685	27.46	2,758	26.83
Stockyards	90	32.51	117	36.97
Telephone and telegraph	198	23.57	275	26.12
Transportation by water	52	30.56	27	32.59
Public utilities	1,345	30.76	1,713	30.50
Offices	160	27.54	207	26.86
Stores	4,769	22.65	4,332	22.76
Yards (not otherwise classified)	905	27.12	921	27.45
Lumberyards	121	26.07	266	26.62
Salesmen and outside agents	113	31.96	87	32.86
Domestic service	2,303	22.22	2,411	22.52
Personal service	230	34.14	235	39.53
Professional service	98	26.71	123	33.19
Municipal and public	965	29.91	1,237	30.12
Miscellaneous industries	20	----------	85	26.87
Aviation	7	----------	31	58.71
Steam railways (intrastate)	----------	----------	9	----------
Total	45,385	27.27	46,101	27.91

Wages and Hours of Labor in Virginia, 1929

NOTWITHSTANDING the general business depression and the reduction of output and unemployment problems resulting therefrom, Virginia has made industrial progress, according to the annual report of the Department of Labor and Industry of that State for the year ending September 30, 1930. In the calendar year 1929 the total capital investment of 3,754 Virginia plants aggregated $941,470,096, the value of output of 3,923 establishments totaled $897,454,121, while the sum reported paid in wages and salaries to employees, excluding the building trades, mining, and quarrying, was $185,324,336.

The tables following have been compiled from the above-mentioned report.

TABLE 1.—WAGE RATES AND HOURS OF LABOR IN VARIOUS OCCUPATIONS AND INDUSTRIES, 1929

Industry and occupation	Number of employees		Average rates of wages		Average hours per day	
	White	Colored	White	Colored	White	Colored
General contracting:			*Per day*	*Per day*		
Apprentices	73	64	$3.76	$1.51	8+	8+
Bricklayers	589	45	9.96	6.88	8	9
Carpenters	1,429	33	6.05	3.23	8+	9
Cement workers	91	80	6.47	4.11	9	9
Electricians	150	1	6.71	6.75	8+	9
Engineers	31	1	8.33	8.80	8+	8
Iron workers	6		11.00		8	
Helpers	203	55	3.86	3.12	8+	9
Hod carriers	47	110	3.86	3.85	9	8+
Laborers	579	1,319	2.83	3.02	9+	9+
Lathers	27	21	4.40	4.63	8+	9+
Painters and decorators	64	3	5.99	[1] 4.00	9	8
Plasterers	68	22	8.99	8.08	8+	8+
Sheet-metal workers	67	2	6.45	6.75	8+	9
Slaters and tile setters	18		6.55		8+	
Steam fitters	19		8.63		8+	
Stonemasons	22		11.02		8+	
Miscellaneous	57	1	6.81	5.00	9	10
Painting and paper hanging:						
Apprentices	17	1	2.80	2.14	8+	
Helpers	2	3	2.55	4.33	8	8
Laborers		8		3.21		8+
Painters and decorators	376	4	6.05	4.45	8+	8+
Paper hangers	56		6.74		8	
Plasterers	2	3	6.20	4.03	9	8
Scrapers	9	6	[2] 4.00	[3] 3.33	8	8
Millstone, sandstone, sand, and gravel quarries:						
Blacksmiths	4	1	4.84	5.00	10	10
Cranemen	1		4.11		8	
Drillers	6		2.58		9+	
Drum operators	1		4.50		10	
Engineers	14	2	5.37	4.80	9+	12+
Firemen	15	5	4.20	3.15	9+	9+
Foremen	13		5.77		9	
Helpers	5	1	2.99	3.50	10	10
Laborers	120	164	3.00	3.03	9+	9+
Loaders	64		2.87		9+	
Miscellaneous	95	7	4.33	3.28	9+	11+
Shovel operators	1		8.00		9	
Superintendents	11		7.60		10	
Watchmen		1		3.25		10
Miscellaneous ores:						
Foremen and assistants	17		5.32		9	
Laborers	185		2.83		9+	
Miners and helpers	198		3.59		9+	
Miscellaneous	20		4.00		10	
Mucklers and trammers	192		3.21		9+	
Surface employees	86		3.90		9+	
Miscellaneous quarrying:						
Cranemen	2		6.73			
Crusher men	15	1	3.59	3.50	10	10
Blacksmiths	2		5.50		10	
Engineers	12		4.41		10	
Firemen	2	1	4.80	2.25	10	10
Foremen	7		5.12		10	
Laborers	34	8	3.00	2.24	10	10
Miscellaneous	54		4.02		10	
Powder men	3		4.07		10	
Repair men	6		5.00		10	
Shovel operators	4		6.07		10	
Watchmen	5		3.56		10	
Well drillers	11		4.65		10	
Slate quarries:						
Blacksmiths	2	1	4.00	4.25	10	10
Drillers	4	5	3.50	3.30	10	10
Engineers	5	7	4.40	3.00	10	10
Firemen	1	1	3.85	3.50	11	10
Foremen	7		5.43		10	

[1] Rate for only 1; not an average. [2] Average for only 5. [3] Average for only 3.

TABLE 1.—WAGE RATES AND HOURS OF LABOR IN VARIOUS OCCUPATIONS AND INDUSTRIES, 1929—Continued

Industry and occupation	Number of employees		Average rates of wages		Average hours per day	
	White	Colored	White	Colored	White	Colored
Slate quarries—Continued.			*Per day*	*Per day*		
Helpers	19	8	$3.17	$3.00	10	10
Laborers	65	105	2.82	2.70	10	10
Miscellaneous	23	61	3.26	2.90	10	10
Slaters	146	4	4.38	3.50	10	10
Soapstone quarries:						
Carpenters	10	-------	3.75	-------	9	-------
Firemen	7	-------	4.10	-------	12	-------
Foremen	61	-------	6.26	-------	9+	-------
Electricians	5	-------	5.15	-------	9	-------
Engineers	8	-------	5.03	-------	11	-------
Laborers	406	61	3.26	3.26	9+	9+
Machinists	20	-------	5.09	-------	9+	-------
Mill hands	2	-------	3.00	-------	10	-------
Miscellaneous	36	-------	4.82	-------	9+	-------
Superintendents	2	-------	7.63	-------	-------	-------
Stone quarries:						
Blacksmiths	5	-------	4.41	-------	9+	-------
Drillers	6	3	3.63	3.58	9+	9+
Engineers	5	-------	4.40	-------	9+	-------
Firemen	2	-------	4.25	-------	10	-------
Foremen	9	-------	4.57	-------	9+	-------
Laborers	79	114	2.71	3.12	10	10
Loaders	12	22	2.58	2.82	10	10
Machinists	3	-------	4.85	-------	9+	-------
Miscellaneous	15	5	3.70	3.18	9+	9+
Stone crushers	5	-------	3.50	-------	10	-------
Superintendents	3	-------	6.31	-------	9+	-------
			Per hour [4]	*Per hour* [4]		
Abattoirs, meat-packing, etc.:						
Males	472	438	$0.45	$0.26	9+	9+
Females	163	65	.30	.28	8+	9
Automobiles, accessories:						
Males	3,466	333	.66	.29	9+	9+
Females	2	2	.26	.17	8	8+
Bakery products:						
Males	1,011	270	.50	.36	9+	9+
Females	255	64	.25	.20	8+	8+
Boots and shoes:						
Males	1,631	40	.43	.29	8+	9
Females	1,290	5	.28	.17	8+	8
Brick and tile: Males	501	1,039	.38	.34	9+	9+
Candy, chewing gum, etc.:						
Males	156	353	.48	.28	9	9+
Females	136	581	.20	.12	8+	8+
Cannery products:						
Males	975	1,258	.26	.26	9+	9+
Females	1,577	3,555	.19	.20	8+	9
Clothing, shirts, and overalls:						
Males	742	118	.45	.39	9	9
Females	4,213	206	.27	.18	8+	9
Cooperage, barrels, and staves:						
Males	416	1,689	.36	.28	9+	9+
Females	30	211	.25	.20	9+	9+
Cotton-mill products:						
Males	4,948	460	.34	.26	10	10
Females	2,773	222	.29	.15	9+	9+
Crabs, oysters, clams, etc. (packing):						
Males	226	1,105	.32	.27	9+	9+
Females	20	550	.20	.18	9+	9+
Creamery and dairy products:						
Males	811	133	.44	.33	9+	9+
Females	35	58	.25	.20	8+	8+
Fertilizers and guano:						
Males	268	1,379	.46	.32	9+	9+
Females	-------	1	-------	.20	-------	8
Fish oil and fish guano: Males	424	945	.34	.24	10	10
Flour and grist mills:						
Males	2,072	202	.44	.32	10	10
Females	1	-------	.31	-------	9	-------
Furniture, mattresses, upholstering, etc.:						
Males	6,248	843	.32	.27	9+	9+
Females	173	1	.20	.18	9+	10
Ice, artificial:						
Males	801	428	.37	.27	10	10
Females	-------	1	-------	.30	-------	9+

[4] Figures relate only to wage earners over 16 years of age in industries employing over 1,000 persons.

TABLE 1.—WAGE RATES AND HOURS OF LABOR IN VARIOUS OCCUPATIONS AND INDUSTRIES, 1929—Continued

Industry and occupation	Number of employees		Average rates of wages		Average hours per day	
	White	Colored	White	Colored	White	Colored
			Per hour	*Per hour*		
Knitting-mill products:						
Males	821	57	$0.36	$0.27	9+	9+
Females	2,196	242	.22	.18	9+	9+
Laundries:						
Males	569	248	.48	.33	10	10
Females	674	1,259	.21	.16	9+	9+
Lime, cement, and limestone:						
Males	1,083	412	.36	.30	10	10
Females	1	1	.21	.26	10	10
Medicines, chemicals, and drugs:						
Males	1,136	236	.52	.33	8+	8+
Females	63	2	.35	.25	8+	8+
Miscellaneous:						
Males	1,904	569	.47	.30	9+	9+
Females	245	83	.30	.20	8+	8+
Paper and pulp-mill products:						
Males	2,141	884	.45	.37	9	9
Females	103	12	.29	.21	9	9
Paper boxes, bags, twine, etc.:						
Males	590	128	.51	.33	9+	9+
Females	662	5	.25	.22	8+	9
Peanut cleaning, coffee roasting:						
Males	116	333	.55	.24	10	10
Females	57	802	.26	.12	8+	9+
Public utilities:						
Males	4,944	730	.50	.30	9+	9+
Females	5	3	.23	.22	8	8+
Railroad activities (shops, etc.):						
Males	10,603	1,447	.66	.39	8+	8+
Females	-------	5	-------	.29	-------	8
Rayon-mill products:						
Males	6,975	808	.52	.30	8	9+
Females	5,141	44	.30	.23	8+	9
Sash, doors, and blinds:						
Males	2,469	837	.43	.27	9+	9+
Females	27	-------	.22	-------	9+	-------
Sawmill products:						
Males	2,111	1,398	.35	.21	10	10
Females	2	-------	.30	-------	6+	-------
Shipbuilding:						
Males	7,228	3,743	.67	.44	8+	8+
Females	3	-------	.59	-------	8	-------
Silk-mill products:						
Males	1,030	7	.39	.31	10	10
Females	1,472	4	.28	.19	10	10
Tannery products and tannery extracts: Males	1,320	236	.36	.36	9+	9+
Tobacco and its products:						
Males	1,780	4,495	.54	.29	9+	9+
Females	4,147	6,064	.33	.16	9	9+
Trunks, bags, etc.:						
Males	868	100	.34	.26	9+	9+
Females	192	-------	.25	-------	8+	-------
Wooden baskets, boxes, crates, and shooks:						
Males	1,013	1,489	.35	.23	9+	9+
Females	10	347	.28	.12	8	9+
Woolen mill products:						
Males	697	2	.36	[1] .20	9+	10
Females	343	-------	.24	-------	9+	-------

[1] Rate for only 1; not an average.

In 1929 pick miners in the coal mines of Virginia were paid from 40 cents to $1.50 per ton, the average pay for white males being 65 cents and for colored, 52 cents. Machine miners and helpers received from 32 cents to $1.50 per ton, the average for white and also for colored males being 46 cents.

The hourly rates of other underground employees in coal mines in 1929 are presented in Table 2, the average for fire bosses and assistants being 57 cents and for foremen and assistants, 70 cents.

TABLE 2.—AVERAGE RATES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS (UNDERGROUND) IN COAL MINES, 1929

Occupation	Number of employees		Average rate per hour		Average hours per day
	White	Colored	White	Colored	
Doorboys and helpers	145	24	$0.36	$0.35	8
Drivers and runners	544	163	.46	.47	8
Fire bosses and assistants	19	----	.57	----	8
Foremen and assistants	258	----	.70	----	8
Miscellaneous	1,728	113	.45	.43	8
Shot firers and motormen	79	----	.50	----	8
Timbermen and trackmen	796	62	.48	.47	8

In Table 3 the average rates per day and average daily hours in different occupations in Virginia iron and machinery plants for 1929 are reported:

TABLE 3.—DAILY WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS IN IRON AND MACHINERY PLANTS, 1929

Occupation	Number of employees	Average rate per day	Average hours per day	Occupation	Number of employees	Average rate per day	Average hours per day
Apprentices	52	$2.84	9	Heaters' helpers	7	$3.53	10
Blacksmiths	76	5.69	9	Joiners	4	4.00	10
Blacksmiths' helpers	58	3.79	9	Lathe men	56	4.58	9
Boiler makers	31	6.10	9	Machinists	428	6.01	8+
Boiler makers' helpers	33	3.35	9	Miscellaneous helpers	149	6.11	9+
Carpenters and coopers	60	4.96	9	Molders	338	5.90	9+
Coppersmiths	4	6.80	8	Pattern makers	64	6.65	9
Draughtsmen	124	7.47	8+	Pipe fitters	12	5.54	9+
Drillers	26	3.84	9+	Puddlers	44	6.69	10
Electricians	32	5.88	9+	Puddlers' helpers	12	3.88	10
Engineers	19	5.00	10	Scrap heaters	6	6.96	11
Firemen	20	3.86	10	Scrap heaters' helpers	12	3.74	11
Foremen	152	7.57	9+	Riggers	7	6.45	9
General help (skilled)	1,216	4.60	8+	Riveters and calkers	69	4.96	9+
General help (unskilled)	1,629	3.11	9+	Rollers	4	9.43	10
Grinders	23	3.56	9+	Shearmen	48	3.77	9+
Hammersmiths (axle)	9	5.39	8+	Watchmen	47	3.55	9+
Heaters	43	4.02	9				

Table 4 records the daily rates of wages in engraving and printing for male and female employees over 16 years of age in various occupations in 1929, the average hours of work per day being eight for each occupation:

TABLE 4.—DAILY WAGES IN SPECIFIED OCCUPATIONS IN PRINTING AND ENGRAVING, 1929

Occupation	Males		Females		Occupation	Males		Females	
	Number of employees	Average rate per day	Number of employees	Average rate per day		Number of employees	Average rate per day	Number of employees	Average rate per day
Apprentices	156	$2.75	3	$1.88	Foremen	24	$7.93	----	----
Artists	16	8.01	----	----	Forwarders	9	5.73	----	----
Binders	68	6.15	38	2.38	Gilders	3	6.80	----	----
Binders' helpers	33	3.85	199	2.56	Linotype operators	284	7.30	36	$2.78
Compositors	349	6.30	9	3.44	Miscellaneous	214	3.42	77	2.15
Compositors' helpers	33	3.36	4	2.50	Monotype casters	42	6.99	----	----
Cutters	55	5.47	----	----	Monotype operators	----	----	14	4.58
Devils	18	1.81	----	----	Photographers	13	9.16	----	----
Electrotypers	9	8.40	----	----	Plate printers	17	3.92	----	----
Embossers	3	4.66	12	2.15	Pressmen	315	5.90	3	4.33
Engineers	20	5.53	----	----	Pressmen's helpers	119	3.30	15	2.70
Engravers	45	8.10	4	2.04	Proof readers	32	6.07	39	3.10
Feeders	64	3.52	40	2.47	Rulers	21	6.30	----	----
Finishers	14	5.94	28	2.17	Stereotypers	47	6.27	----	----
Firemen	9	3.97	----	----	Stone polishers	7	4.49	----	----
Folders	11	4.73	52	2.36	Transferers	17	7.17	----	----

Forty-Four Hour Week in New South Wales

AS ONE means of meeting the industrial depression from which New South Wales, in common with all Australia, has been suffering, that State passed legislation in June, 1930, lengthening the standard week to 48 hours and allowing an employer to "ration" his work for the purpose of spreading employment over a greater number of men. (See Labor Review, November, 1930, p. 43.) The workers objected to both these provisions, especially to the latter, since it did away with the guaranteed week, which they felt was of first importance. An election was held during the summer, which put a labor Government into power. According to the Employers' Review (Sydney) for January 31, 1931, in December this Government took steps to rescind the action of last June, and an amendment to the earlier act was passed, restoring the 44-hour week, without any proportionate reduction of wages, and forbidding rationing in private employment, unless special court permission should be obtained authorizing it. The amendment became effective on January 5, and according to the Employers' Review, "the immediate effect of this was that thousands of employees who were receiving some work and wages were dismissed."

There is much disagreement between the employers and the laborites as to the desirability of the antirationing clause. The employers maintain that it will increase greatly the suffering arising from unemployment, while the labor leaders hold that it is better socially to have one man fully employed and another definitely unemployed, than to have two men partly employed and rubbing along as best they can.

Wages of Agricultural Labor in Barbados

A REPORT on the sugar industry in Barbados by the director of agriculture of the colony, dated November 9, 1930, and published by the British Colonial Office in Further Correspondence Relating to the Position of the Sugar Industry in Certain West Indian Colonies and British Guiana (Cmd. 3745), contains the following data on wages of agricultural labor:

DAILY WAGES OF AGRICULTURAL LABOR IN BARBADOS

Class of workers	Pre-war	Post-war	1928–29	1930
	Cents	*Cents*	*Cents*	*Cents*
Men	20–24	36–42	30–36	30
Women	12–15	30–36	24	18–20
Youths	6–10	18–24	15–20	10–18

While it is reported that agricultural labor in Barbados has never been well paid, and the figures for 1930 show a drop from the previous year, the governor of the colony, in a dispatch printed in the same publication, states that since 1925 "there has been a considerable drop in the cost of commodities, concerning particularly the laboring classes," and further, that "the agricultural laborer in Barbados has

always lived more or less as he lives to-day, a standard of life the needs of which are few and easily satisfied."

Agricultural laborers were reported to work for not more than four days a week, and it was said that the average planter could not afford to employ them longer than that.

Recent Wage Changes in Great Britain [1]

THE world-wide depression has struck with especial force in Great Britain, which was already struggling with a problem of severe unemployment and was facing the probable necessity of having to reorganize several of its basic industries, notably coal and textiles. The progress of its industrial readjustment is marked by a sharp clash between two schools of thought, one holding that the first and most essential step is to cut down wages, lengthen hours, and curtail social services, while the other upholds the importance of maintaining a consumers' market and keeping up the potential efficiency of the worker by holding onto all the gains which have been made thus far and adding others as rapidly as possible. Consequently, as agreements between workers and employers expire, or as, for other reasons, new agreements become necessary, there is a struggle over the terms to be established. In some cases, as in the South Wales coal fields and the cotton-textile industry in the first two months of the year, this has led to stoppages; in other cases, a stoppage has been averted with much difficulty, and in still others the matter is still pending. During March, two important agreements were reached, one determining wages and conditions in the railway services, and the other establishing a new wage scale in the South Wales coal fields.

Changes in Wages and Conditions on English Railroads

IN 1928 the English railway workers agreed to a cut of 2½ per cent in their wages, to operate for a year, and at the end of the year consented to extend the period for a further six months, with the understanding that the date of the restoration of the full wages should be followed by a six months' truce, during which neither side should ask any changes in wages or conditions of work. This period of truce came to an end on November 13, 1930, and the railway companies promptly brought forward proposals for sweeping alterations in both wages and conditions.

Briefly, their proposals were that wage rates for adult male workers should be reduced by 6s. ($1.46) a week, and the existing minimum of 40s. ($9.73) a week should be lowered to 38s. ($9.25), while the rates for junior males and for females should be cut by 3s. (73 cents) a week. Salaried men should receive cuts of from £10 to £15 ($48.67 to $73) a year, and woman clerks should receive from 3s. to 4s. 6d. ($0.73 to $1.10) less per week. Under the proposed terms the standard weekly hours, whether 48 or less, would be worked as the companies might require and would include Sunday duty when necessary. Payment would be made only for time actually worked. Overtime, at the rate

[1] The data on which this article is based are from Manchester (England) Guardian, issues of Nov. 14, 1930, and Mar. 6, 7, and 19, 1931.

of time and a quarter, would be paid only for time worked in excess of the standard weekly hours. Sunday duty and night duty would be paid for at ordinary rates, but if in excess of the standard week would be paid for at the rate of time and a quarter. A corresponding revision would be made of the aggregation allowances payable to the salaried staff.

The proposals were more drastic than had been anticipated, and aroused much opposition among the men. The workers held that they involved the abolition of the guaranteed week, one of the features of the national agreement to which they held most tenaciously, and there was no question that they abolished the favorable Sunday terms. The men also considered that the proposed cuts were entirely unreasonable, and countered with claims of their own for various improvements. Following the normal course of a wage dispute, the matter came before the national railways board, which after hearing both sides rendered its award on March 5, 1931. The Manchester Guardian, stating that the award covers 90,000 employees in the clerical and supervisory grades, and 356,000 wage earners, gives a discussion of its terms, which may be thus summarized:

The award includes a reduction of wages on a sliding scale. For the conciliation (wage) grades there is a cut of 2½ per cent on all earnings, with a further deduction of 2½ per cent on earnings over 40s. ($9.73) a week. Provision is made, however, that in the case of male adults whose base rates are under 41s. ($9.98) a week, the deductions shall not operate so as to reduce their earnings below their base rates, and in no case shall any deductions exceed the sum of 6s ($1.46) a week.

For all those paid on a salary basis there is to be no change in conditions or classification. All earnings shall be subject to a deduction of 2½ per cent, with a further deduction of 2½ per cent in respect of all earnings in excess of £100 ($486.65) a year, provided that in no case shall any deduction exceed £15 ($73) a year.

Reductions in overtime pay are made, from time and a quarter to time and an eighth for day overtime, and Sunday pay is reduced from time and a half to time and a third. A spread-over of 12 hours may be adopted for all grades, except engineers, firemen, guards, and signalmen, subject to review by the central wages board or appeal to the national wages board where it is contended that such a spread-over is unreasonable.

The principles of the guaranteed day and week are to be retained.

The decision of the board is to be operative from the beginning of the first full pay following March 28, 1931, to the first full pay following March 26, 1932, and will continue until changed by agreement between the parties or a decision of the central wages board or on appeal to the board.

Neither side was satisfied with these terms, but the representatives of both sides accepted them as the best they could get at present. The workers in general were so displeased with the result that their leaders had much difficulty in holding them in line and preventing breakaway strikes. By the beginning of April, however, they had apparently made up their minds to accept the award for at least the year covered by the board's decision.

Railway Shopmen's Terms

THE RAILWAY shopmen, who are not in the unions covered by the above agreement, carried on a dispute of their own at the same time, which was finally settled by negotiations between the railway companies and the union representatives. The men on two lines were excluded from the settlement, as they were working under a separate system of payment. The others, numbering approximately 100,000, secured the terms thus summarized in a statement issued at the close of the negotiations:

The gross earnings of all railway employees under shop conditions, other than those on [the two lines referred to above] to be subject to a deduction of 4⅛ per cent. The deduction shall not operate so as to reduce the earnings of any adult male employee below 40s. [$9.73] per week.

The railway companies undertake that short time shall not be worked so as to restrict employment to less than the equivalent of five full days in any week, apart from holiday periods of circumstances of an exceptional character. These arrangements to be operative from the beginning of the first full pay following March 28 to the first full pay following March 26, 1932, and to continue thereafter until altered by a decision of the council.

Wages in the South Wales Coal Fields

ON THE coming into effect of the 1930 coal mines act, which reduced hours from 8 to 7½ a day, a dispute took place in South Wales, which turned on two points: Should there be a straight 7½-hour day or a spread-over (which the men considered less favorable to them), and should the dispute and the question of a new wage scale (the old agreement having expired) be submitted to the national coal mines board provided for in the act, or to local arbitration with an independent chairman? The result was a compromise under which the men carried their point as to hours and the employers won on the arbitration question. Consequently, the wage scale was submitted to a local board, whose chairman announced the decision on March 6, stating that, having considered the present economic condition of the industry, he fixed the minimum percentage at 20 per cent on the 1915 rates, and the subsistence wage on the following scale:

	Scale per day	
Adult day-wage men:	*s.* *d.*	
With no family responsibilities	7 0	[$1.70]
With no children	7 3	[1.76]
With dependent children	7 6	[1.83]
With children working	7 3	[1.76]
Unmarried, with family responsibilities	7 3	[1.76]
Miner, aged 16 to 21, supporting family exceeding two	7 6	[1.83]
Miner supporting family of two	7 3	[1.76]

Boys under 16 receive 6s. [$1.46], and in all cases of workmen under 21 a flat allowance of fourpence [8 cents] a shift is added to the wages. No subsistence allowance is to be paid for overtime and week-end work, and if a workman does not present himself for work every day without reasonable excuse he shall not be entitled to a subsistence allowance.

The cuts were more severe than had been anticipated. It was calculated that under these terms the average wage would be only 12.5 per cent above that of 1914, while the cost-of-living index was, in March, 57 per cent above that of the earlier date. The men were outraged by the decision and several unauthorized strikes occurred. The leaders used every effort to prevent a stoppage, and at the end of March it seemed that they had succeeded.

Wage Rates in Great Britain, 1914 and 1930

IN ITS issue for March, 1931, the Ministry of Labor Gazette (London) contains a discussion of the relative levels of wage rates in August, 1914, and at the end of December, 1930. The department, it is explained, has no comprehensive data as to the rates actually paid by various employers in the different industries at the two dates.

The information available for the purposes of such a comparison is in nearly all cases limited to (*a*) the standard or minimum rates of wages fixed by collective agreements signed by the employers' associations and trade-unions concerned, or embodied in arbitration awards, statutory orders under the trade boards acts, etc., or, (*b*) in some industries in which no such agreements, awards, or orders have been made, to the minimum rates recognized by the trade-unions concerned. * * * It is important, however, to realize that the rates of wages actually paid to individual workpeople, or to particular sections of workpeople, may in a considerable proportion of cases have been altered since 1914, independently of the general changes jointly agreed upon by employers' associations and trade-unions, or fixed by awards, orders, etc. Moreover, no information exists as to the changes which have occurred in rates of wages in industries, or sections of industries, in which neither standard nor minimum rates, nor the general amounts of increase or decrease in rates of wages, have been fixed by collective agreements, arbitration awards, statutory orders, etc.

The caution is therefore given that the data furnished can not be regarded as more than an approximate indication of the levels of wage rates at the two dates.

Building Trades

IN THE building trades both employers and employees are very generally organized, and standard rates fixed by agreement between the two sides are the rule, so that more satisfactory data can be obtained in this case than for some other industries. Taking the unweighted averages of the standard rates of the principal classes of workers in towns with populations of over 100,000, the changes between the two periods were as follows:

TABLE 1.—AVERAGE RATES OF WAGES IN PRINCIPAL BUILDING TRADES, 1914 AND 1930, AND PER CENT OF INCREASE

[Conversions into United States currency on basis of £=$4.8665]

Occupation	Rate Aug. 14, 1914		Rate Dec. 31, 1930		Per cent of increase	
	Per hour	Per week	Per hour	Per week	Hourly rate	Weekly rate
Bricklayers	$0.201	$9.87	$0.386	$17.17	93	74
Masons	.199	9.63	.388	17.21	95	79
Carpenters and joiners	.199	9.71	.386	17.17	95	77
Plumbers	.195	9.65	.386	17.17	98	78
Plasterers	.197	9.73	.392	17.38	98	79
Painters	.179	8.82	.386	17.09	116	94
Laborers	.134	6.57	.288	12.79	116	95

If the increases shown above are combined in the proportions of the relative numbers of men employed in the different occupations, the resulting general average increase over pre-war rates was approximately 8¾d. [17.7 cents] per hour (or about 107 per cent) at the end of December. The increase in weekly full-time wages, allowing for the effect of the reductions which have been made since

1914 in the weekly working hours, was approximately 29s. 3d. [$7.12] or about 86 per cent. It should be observed that the percentages given are general averages for all the large towns combined, and that there is much variation in the percentage increases in different towns.

Engineering and Shipbuilding

IN THE engineering industry the general advance over pre-war rates for men on time work amounted to from 19s. to 19s. 10½d. ($4.62 to $4.84) a week, and in shipbuilding to from 17s. to 17s. 10½d. ($4.14 to $4.35) per week. The following table shows the unweighted averages of the district time rates of wages of men in 16 of the principal engineering centers and 9 of the principal shipbuilding centers at the two dates, with the percentage increase at the later date over pre-war rates:

TABLE 2.—AVERAGE WEEKLY RATES OF WAGES IN SPECIFIED OCCUPATIONS, 1914 AND 1930, AND PER CENT OF INCREASE

[Conversions into United States currency on basis of shilling=24.33 cents, penny=2.03 cents]

Occupation	Weekly wage rate				Per cent of increase, 1914 to 1930
	Aug. 4, 1914		Dec. 31, 1930		
	British currency	United States currency	British currency	United States currency	
Engineering:	s. d.		s. d.		
Fitters and turners	38 11	$9.47	59 1	$14.38	52
Iron molders	41 8	10.14	62 4	15.17	50
Pattern makers	42 1	10.24	63 4	15.41	51
Laborers	22 10	5.56	42 1	10.24	84
Shipbuilding:					
Shipwrights	41 4	10.06	59 11	14.58	45
Ship joiners	40 0	9.73	60 0	14.60	50
Laborers	22 10	5.56	40 11	9.96	80

For pieceworkers the increase is a complicated matter, consisting of a flat advance plus a percentage increase on base rates, with variations in both factors for different classes of workers. "The information at the disposal of the department is not sufficient to enable a reliable calculation to be made of the percentage increase in the wages of pieceworkers."

The above are wage rates; the federation of employers in the engineering trades compiled some data, quoted by the Labor Gazette, showing the percentage increase in actual earnings on March 30, 1930, over July, 1914, as follows:

TABLE 3.—AVERAGE WEEKLY EARNINGS OF ADULT MALE TIME WORKERS IN ENGINEERING TRADES, 1914 AND 1930, AND PER CENT OF INCREASE

[Conversions into United States currency on basis of shilling=24.33 cents, penny=2.03 cents]

Occupation	Average weekly earnings				Per cent of increase, 1914 to 1930
	July, 1914		March, 1930		
	British currency	United States currency	British currency	United States currency	
	s. d.		s. d.		
Fitters	39 6½	$9.62	66 11½	$16.29	69
Turners	39 2¼	9.54	62 8½	15.26	60
Molders	39 1	9.51	61 11¼	15.07	59
Pattern makers	40 4¾	9.83	67 0¾	16.32	66
Laborers	24 11¼	6.07	48 8	11.84	95

Coal Mining

IN COAL mining it is almost impossible to calculate the changes in wage rates, since these have been made in such various ways. In general, the wage is calculated as a percentage on a specified base, but since 1914 in some cases the basic wage has been altered, in others special advances or allowances have been made to some classes of workers and not to others, and in most districts special subsistence allowances have been made to the lower-paid workers. The earnings per shift, however, are compiled for each quarter by the Mines Department, and the following table shows the changes in these from June, 1914, to September, 1930:

TABLE 4.—AVERAGE EARNINGS PER SHIFT IN COAL MINING, 1914 AND 1930, AND PER CENT OF INCREASE

[Conversions into United States currency on basis of shilling=24.33 cents, penny=2.03 cents]

District	Average earnings per shift				Per cent of increase 1914 to 1930
	June, 1914		Quarter ending Sept. 30, 1930		
	British currency	United States currency	British currency	United States currency	
	s. d.		s. d.		
Northumberland	6 2¼	$1.51	7 8¼	$1.87	24
Durham	6 2½	1.51	8 1	1.97	30
Yorkshire	6 10	1.66	10 1¾	2.47	48
Lancashire, Cheshire, and North Staffordshire	6 0¼	1.47	9 2¼	2.24	53
North Derbyshire and Notts	6 6¾	1.60	10 4¾	2.53	58
South Wales and Monmouth	6 9	1.64	9 6¼	2.32	41
Scotland	6 9	1.64	9 2	2.23	36
All districts	6 5¾	1.58	9 3¾	2.27	44

At the end of March, 1931, a wage cut went into effect in the South Wales coal mines, which reduced severely the possible earnings per shift. During the quarter ending September 30, 1930, the cost of living varied from 55 per cent above the figure for July, 1914, on July first, to 57 per cent on September first.

Railway Workers

FOR the principal grades of adult workmen in the traffic sections of the railway service, the wage rates in operation at the end of December, 1930, showed a wide range of increases above the pre-war rates for the corresponding grades. For some of the lower-paid grades, on pre-war rates of about 18s. ($4.38) a week, the increase was as much as 130 per cent; on the other hand, for certain classes of higher-paid men, it amounted to a little under 100 per cent. The hours of labor were reduced to 48 a week in 1919, without any reduction in weekly rates of wages, and the increases in hourly rates are, therefore, higher than the percentage increases in weekly rates.

The railway workers, like the South Wales miners, have recently had, by award, a cut in wages, effective from the latter part of March, which will of course reduce the percentage increases in their rates.

Other Trades and Industries

For workers in electrical installation, weekly full-time rates show an increase over 1914 of about 91 per cent, and for other metal trades the increases range from 20 per cent to 70 per cent. In cotton textiles, the average full-time weekly rates have increased about 50 per cent, and in wool textiles the advances range from 64 to 72 per cent. In the boot and shoe industry the increases for men range from 90 to 95 per cent, and for women 20 years of age or over, the minimum rates have increased about 90 to 100 per cent. In agriculture it is estimated that the average minimum rates for ordinary laborers on December, 1930, showed an increase of about 76 per cent over the average of the cash rates and allowances in 1914, which was 18s. ($4.38) a week.

Summary

Both the amounts and the corresponding percentages of increase over pre-war rates show a wide diversity among different classes of workpeople. In some cases the increases in full-time weekly rates at the end of December, 1930, were equivalent to less than 20 per cent on the pre-war rates. On the other hand, they were equivalent in some cases to over 100 per cent on the pre-war rates. The information at the disposal of the department is insufficient to enable the average percentage increase for all industries and occupations to be calculated exactly, but it is estimated that at the end of December, 1930, weekly full-time rates of wages, for those classes of adult workpeople for which information is available, averaged between 70 and 74 per cent above the level of August, 1914, as compared with 170 to 180 per cent at the end of December, 1920, when wages generally were at their highest level.

These wage rates, it is repeated, are for full-time operation, and take no account of variations in the state of employment, nor of such matters as changes in the proportion of workers in different industries and occupations, nor of changes in the proportion paid at time and at piece rates of wages. The importance of the changes, of course, is closely related to changes in the cost-of-living index, which at the beginning of December, 1930, stood at 155 as compared with 100 in July, 1914.

Wages in Japan, 1928 and 1929

THE average daily wages of Japanese workers in various industries for the years 1923 to 1929, inclusive, are reported in the Financial and Economic Annual of Japan, 1930 (Tokyo). The following table gives these statistics for 1928 and 1929:

AVERAGE DAILY WAGES IN VARIOUS OCCUPATIONS IN JAPAN, 1928 AND 1929

[Conversions into United States currency on basis of average exchange rate of yen=in 1928, 46.4 cents; in 1929, 46.1 cents]

Occupation	Daily wage			
	1928		1929	
	Yen	United States currency	Yen	United States currency
Textile industry:				
Silk reelers, female	0.92	$0.43	0.97	$0.45
Cotton spinners, female	1.13	.52	1.17	.54
Silk throwers, female	.86	.40	.88	.41
Cotton weavers, machine, female	1.01	.47	.99	.46
Silk weavers, hand, female	1.12	.52	.99	.46
Hosiery knitters, male	1.68	.78	1.63	.75
Hosiery knitters, female	.83	.39	.91	.42
Metal industry:				
Finishers	2.39	1.11	2.33	1.07
Founders	2.40	1.11	2.35	1.08
Blacksmiths	2.30	1.07	2.29	1.06
Wooden-pattern makers	2.43	1.13	2.43	1.12
Stone, glass, and clay products:				
Cement makers	2.06	.96	2.06	.95
Glassmakers	2.06	.96	2.09	.96
Potters	1.99	.92	1.92	.89
Brickmakers	1.77	.82	1.64	.76
Tile makers	1.92	.89	1.77	.82
Chemical industry:				
Matchmakers, male	1.44	.67	1.47	.68
Matchmakers, female	.67	.31	.68	.31
Oil pressers	1.89	.88	1.92	.89
Paper industry:				
Makers of Japanese paper	1.56	.72	1.51	.70
Makers of foreign paper	1.71	.79	1.75	.81
Leather industry:				
Leather makers	2.19	1.02	2.28	1.05
Food industry:				
Flour millers	1.84	$0.85	1.87	$0.86
Sake-brewery workers	1.96	.91	1.93	.89
Soy-brewery workers	1.83	.85	1.87	.86
Sugar-refinery workers	1.97	.91	2.12	.98
Confectioners	1.56	.72	1.53	.71
Canners	1.80	.84	1.68	.77
Wearing-apparel industry:				
Tailors (European dress)	2.50	1.16	2.44	1.12
Shoemakers	2.31	1.07	2.36	1.09
Clog makers	1.80	.84	1.83	.84
Building industry:				
Carpenters	2.84	1.32	2.77	1.28
Plasterers	3.13	1.45	3.07	1.42
Stone cutters	3.31	1.54	3.23	1.49
Bricklayers	3.16	1.47	3.12	1.44
Roofing-tile layers	3.33	1.55	3.32	1.53
Painters	2.80	1.30	2.76	1.27
Woodworking industry:				
Sawyers (machine)	2.29	1.06	2.22	1.02
Joiners	2.37	1.10	2.32	1.07
Lacquerers	2.08	.97	2.08	.96
Rope makers	1.59	.74	1.58	.73
Mat makers (floor)	2.59	1.20	2.56	1.18
Printing industry:				
Compositors	2.36	1.10	2.38	1.10
Bookbinders	2.07	.96	2.06	.95
Day laborers:				
Stevedores	2.39	1.11	2.32	1.07
Day laborers, male	1.98	.92	1.93	.89
Day laborers, female	1.05	.49	.99	.46
Fishermen	1.76	.82	1.74	.80
Domestic service:				
Servants, male	[1]16.59	[1]7.70	[1]16.21	[1]7.47
Servants, female	[1]12.50	[1]5.85	[1]12.30	[1]5.67

[1] Monthly contract.

Wages in Yugoslavia, 1930

THE table following shows average weekly money wages in the timber, food, building, mining, textile, and printing industries in Croatia and Slavonia, Yugoslavia, during the first three quarters of 1930.[1] The statistics are based upon data collected from a number of representative firms in the six selected industries.

[1] Data are from Chamber of Labor for Croatia and Slavonia, Index, Zagreb, December, 1930, pp. 25–30.

AVERAGE WEEKLY WAGES IN SPECIFIED OCCUPATIONS IN CROATIA AND SLAVONIA DURING FIRST THREE QUARTERS IN 1930

[Conversions into United States currency on basis of exchange rate of dinar=1.8 cents]

Industry and occupation	Males		Females		Both sexes	
	Yugoslav currency	United States currency	Yugoslav currency	United States currency	Yugoslav currency	United States currency
Timber						
Workers in forests:	*Dinars*		*Dinars*		*Dinars*	
Producing logs, sleepers, and staves	210	$3.78				
Producing firewood	180	3.24				
Unskilled workers	150	2.70				
Workers in sawmills:						
Engineers	480	8.64				
Sawyers	210	3.78				
Unskilled workers	115	2.07	90	$1.62	120	
All skilled workers	270	4.86				
Unskilled workers	150	2.70	90	1.62	120	$2.16
All employed	210	3.78	90	1.62	150	2.70
Food						
Milling:						
Millers	252	4.54				
Unskilled workers	180	3.24	132	2.38	156	2.81
Meat:						
Butchers' helpers	303	5.45				
Unskilled workers	193	3.47				
Sugar:						
Boilers	502	9.04				
Unskilled workers	120	2.16				
All skilled workers	314	5.65	134	2.41	224	4.03
Unskilled workers	164	2.95	132	2.38	148	2.66
All employed	238	4.28	133	2.39	186	3.35
Building						
Masons and bricklayers	432	7.78				
Joiners and carpenters	432	7.78				
Tinsmiths	528	9.50				
Locksmiths	528	9.50				
House painters	432	7.78				
Concrete workers	336	6.05				
All skilled workers	448	8.06				
Unskilled workers	192	3.46	168	3.02	180	3.24
All employed	320	5.76	168	3.02	244	4.39
Mining						
Foremen of mines	625	11.25				
Miners	240	4.32				
Runners	210	3.78				
Carriers	129	2.32				
All skilled workers	301	5.42				
Unskilled workers	120	2.16	108	1.94	114	2.05
All employed	210	3.78	108	1.94	159	2.86
Textiles						
Spinning mills:						
Female spinners at throstle-machines			209	3.76		
Male spinners	238	4.28				
Unskilled workers	216	3.89	149	2.68		
Weaving:						
Female weavers			185	3.33		
Unskilled workers	216	3.89	134	2.41		
All skilled workers	238	4.28	195	3.51	217	3.91
Unskilled workers	216	3.89	142	2.56	179	3.22
All employed	227	4.09	169	3.04	198	3.56
Printing						
Hand compositors	600	10.80				
Machine operators	750	13.50				
Machinists	680	12.24				
Lithographers	800	14.40				
Foremen	950	17.10				
Bookbinders	590	10.62	270	4.86		
All skilled workers	685	12.33	270	4.86	524	9.43
Unskilled workers	300	5.40	260	4.68	270	4.86
All employed	630	11.34	266	4.79	462	8.32

TREND OF EMPLOYMENT

Summary for March, 1931

EMPLOYMENT decreased less than one-tenth of 1 per cent in March, 1931, as compared with February, 1931, and pay-roll totals increased 0.7 per cent.

The industrial groups surveyed, the number of establishments reporting in each group, the number of employees covered, and the total pay rolls for one week, for both February and March, together with the per cent of change in March, are shown in the following summary:

SUMMARY OF EMPLOYMENT AND PAY-ROLL TOTALS, FEBRUARY AND MARCH, 1931

Industrial group	Establishments	Employment		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		February, 1931	March, 1931		February, 1931	March, 1931	
1. Manufacturing	**14,434**	**2,916,697**	**2,937,525**	[1]+0.9	**$70,033,914**	**$71,537,389**	[1]+2.2
2. Coal mining	**1,496**	**343,733**	**323,697**	−5.8	**8,207,192**	**6,800,776**	−17.1
Anthracite	159	124,004	110,669	−10.8	3,995,371	2,782,146	−30.4
Bituminous	1,337	219,729	213,028	−3.0	4,211,821	4,018,630	−4.6
3. Metalliferous mining	**320**	**43,046**	**41,887**	−2.7	**1,091,981**	**1,056,124**	−3.3
4. Quarrying and nonmetallic mining	**767**	**27,778**	**29,183**	+5.1	**607,009**	**649,644**	+7.0
5. Crude petroleum producing	**573**	**28,554**	**28,143**	−1.4	**1,007,422**	**1,052,257**	+4.5
6. Public utilities	**12,188**	**706,596**	**701,280**	−0.8	**21,525,576**	**22,089,114**	+2.6
Telephone and telegraph	7,970	316,437	314,092	−0.7	9,086,616	9,385,088	+3.3
Power, light, and water	3,681	243,474	240,744	−1.1	7,734,363	7,942,185	+2.7
Electric railroad operation and maintenance, exclusive of car shops	537	146,685	146,444	−0.2	4,704,597	4,761,841	+1.2
7. Trade	**10,587**	**360,098**	**361,748**	+0.5	**9,165,069**	**9,242,010**	+0.8
Wholesale	2,094	66,536	65,950	−0.9	2,110,221	2,126,371	+0.8
Retail	8,493	293,562	295,798	+0.8	7,054,848	7,115,639	+0.9
8. Hotels	**2,119**	**156,520**	**156,575**	+[2]	[3] **2,608,118**	[3] **2,601,200**	−0.3
9. Canning and preserving	**803**	**30,988**	**33,981**	+9.7	**545,651**	**564,623**	+3.5
10. Laundries	**351**	**30,204**	**30,032**	−0.6	**575,032**	**574,974**	−[2]
11. Dyeing and cleaning	**158**	**5,027**	**5,061**	+0.7	**113,356**	**114,155**	+0.7
Total	**43,796**	**4,649,241**	**4,649,112**	−[2]	**115,480,320**	**116,282,266**	+0.7

Recapitulation by Geographic Divisions

Geographic division							
New England [4]	4,252	459,731	464,588	+1.1	$10,919,329	$11,121,733	+1.9
Middle Atlantic [5]	7,312	1,413,761	1,399,607	−1.0	37,513,964	36,761,362	−2.0
East North Central [6]	9,886	1,280,304	1,289,760	+0.7	33,282,415	34,354,210	+3.2
West North Central [7]	4,781	300,887	297,668	−1.1	7,390,968	7,343,966	−0.6
South Atlantic [8]	4,641	471,123	477,664	+1.4	9,230,985	9,426,257	+2.1
East South Central [9]	2,395	194,787	193,315	−0.8	3,458,405	3,447,900	−0.3
West South Central [10]	3,317	181,443	178,502	−1.6	4,305,329	4,347,683	+1.0
Mountain [11]	1,655	87,429	85,244	−2.5	2,288,693	2,271,022	−0.8
Pacific [12]	5,557	259,776	262,764	+1.2	7,090,232	7,208,133	+1.7
All divisions	**43,796**	**4,649,241**	**4,649,112**	−[2]	**115,480,320**	**116,282,266**	+0.7

[1] Weighted per cent of change for the combined 54 manufacturing industries, repeated from Table 2, p. 174, the remaining per cents of change, including total, are unweighted.
[2] Less than one-tenth of 1 per cent.
[3] Cash payments only; see note 3, p. 186.
[4] Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont.
[5] New Jersey, New York, Pennsylvania.
[6] Illinois, Indiana, Michigan, Ohio, Wisconsin.
[7] Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota.
[8] Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia.
[9] Alabama, Kentucky, Mississippi, Tennessee.
[10] Arkansas, Louisiana, Oklahoma, Texas.
[11] Arizona, Colorado, Idaho, Montana, New Mexico, Nevada, Utah, Wyoming.
[12] California, Oregon, Washington.

Employment was practically unchanged in March as compared with February. The combined totals of the 15 industrial groups show an actual loss of 129 employees over the month's interval, or three-thousandths of 1 per cent. Pay-roll totals increased $801,946, or 0.7 per cent.

Increased employment in March was shown in 6 of the 15 industrial groups: Manufacturing, 0.9 per cent; quarrying and nonmetallic mining, 5.1 per cent; retail trade, 0.8 per cent; hotels, less than one-tenth of 1 per cent; canning and preserving, 9.7 per cent; dyeing and cleaning, 0.7 per cent.

Decreased employment was shown in March in each of the remaining 9 groups: Anthracite mining, 10.8 per cent; bituminous coal mining, 3.0 per cent; metalliferous mining, 2.7 per cent; crude petroleum producing, 1.4 per cent; telephone and telegraph, 0.7 per cent; power, light, water, 1.1 per cent; electric railroads, 0.2 per cent; wholesale trade, 0.9 per cent; laundries, 0.6 per cent.

Pay-roll totals were higher in March than in February in 10 of the 15 industrial groups, namely, manufacturing, quarrying and nonmetallic mining, crude petroleum producing, telephone and telegraph, power-light-water, electric railroads, wholesale trade, retail trade, canning and preserving, and dyeing and cleaning.

The New England, East North Central, South Atlantic, and Pacific geographic divisions reported increased employment in March, the increases ranging from 0.7 per cent to 1.4 per cent.

PER CAPITA WEEKLY EARNINGS IN MARCH, 1931, AND COMPARISON WITH FEBRUARY, 1931, AND MARCH, 1930

Industrial group	Per capita weekly earnings in March, 1931	Per cent of change March, 1931, compared with—	
		February, 1931	March, 1930
1. Manufacturing	$24.30	+1.3	−9.4
2. Coal mining:			
Anthracite	25.14	−22.0	−9.2
Bituminous	18.86	−1.6	−16.2
3. Metalliferous mining	25.21	−0.6	−16.8
4. Quarrying and nonmetallic mining	22.26	+1.7	−13.8
5. Crude petroleum producing	37.39	+6.1	−0.8
6. Public utilities:			
Telephone and telegraph	29.88	+4.0	+3.9
Power, light, and water	32.99	+3.9	+3.4
Electric railroads	32.52	+1.4	+0.9
7. Trade:			
Wholesale	32.24	+1.7	−0.1
Retail	24.06	+0.2	−2.0
8. Hotels (cash payments only)[1]	16.61	−0.3	−5.4
9. Canning and preserving	16.62	−5.7	−7.1
10. Laundries	19.15	+0.6	[2]
11. Dyeing and cleaning	22.56	+[3]	[2]
Total	25.01	+0.7	[2]

[1] The additional value of board, room, and tips can not be computed.
[2] Data not available.
[3] Less than one-tenth of 1 per cent.

Per capita earnings for March, 1931, given in the preceding table, must not be confused with full-time weekly rates of wages; they are actual per capita weekly earnings computed by dividing the total number of employees reported into the total amount of pay roll in the week reported, and the "number of employees" includes all persons who worked any part of the period reported—that is, part-time workers as well as full-time workers.

Comparisons are made with per capita earnings in February, 1931, and with March, 1930, where data are available.

For convenient reference the latest data available relating to all employees, excluding executives and officials, on Class I railroads, drawn from Interstate Commerce Commission reports, are shown in the following statement. These reports are for the months of January and February, 1931, instead of for February and March, 1931, consequently the figures can not be combined with those presented in the foregoing table.

EMPLOYMENT AND PAY-ROLL TOTALS, CLASS I RAILROADS

Industry	Employment		Per cent of change	Amount of pay roll in entire month		Per cent of change
	Jan. 15, 1931	Feb. 15, 1931		January, 1931	February, 1931	
Class I railroads	1,317,817	1,300,580	−1.4	$182,908,075	$168,126,650	−8.1

The total number of employees included in this summary is about 6,000,000 whose combined earnings in one week amounted to approximately $158,000,000.

1. Employment in Selected Manufacturing Industries in March, 1931

Comparison of Employment and Pay-Roll Totals in Manufacturing Industries, February and March, 1931

EMPLOYMENT in manufacturing industries in March, 1931, increased 0.9 per cent as compared with February and pay-roll totals increased 2.2 per cent.

These changes are based upon returns from 13,461 identical establishments in 54 of the chief manufacturing industries in the United States, having in March 2,802,485 employees whose combined earnings in one week were $68,103,488.

Increased employment in manufacturing industries has been shown in March as compared with February in seven of the nine years covered by the bureau's indexes of employment and pay roll, but only twice—in 1923 and 1929—has the percentage increase been as large as in March, 1931; increased pay-roll totals have been shown in eight of the nine years, but only once—in 1923—has the percentage increase been as large as in March, 1931.

The bureau's weighted index of employment for March, 1931, is 74.8, as compared with 74.1 for February, 1931, 73.1 for January, 1931, and 89.8 for March, 1930; the index of pay-roll totals for March, 1931, is 68.5, as compared with 67.0 for February, 1931, 62.3 for January, 1931, and 90.8 for March, 1930.

Six of the twelve groups of manufacturing industries showed employment gains in March and nine groups showed pay-roll gains. The stone-clay-glass group gained 3.9 per cent in employment, the leather group gained 3.7 per cent, the textile group gained 3.1 per cent, the vehicle group gained 1.3 per cent, and the iron and steel and the nonferrous metal groups gained 0.8 per cent each.

Increased employment in March was shown in 30 of the 54 separate manufacturing industries and increased pay-roll totals in 37 industries. The outstanding increase in employment, 26.3 per cent, appeared in fertilizers, nevertheless this was far below this industry's normal seasonal increase in March. Stoves, brick, and millinery each gained over 7 per cent in employment in March; carpets gained over 6 per cent; automobiles, women's clothing, and cement gained over 5 per cent each; cotton goods, boots and shoes, and carriages and wagons each gained over 4 per cent. The iron and steel industry gained 1.5 per cent, and foundries and machine shops less than one-tenth of 1 per cent.

The notable decreases in employment in March in the 54 separate industries were in the rubber boots and shoes, agricultural implements, and petroleum refining industries, and ranged from 18.1 per cent to 10.2 per cent; all other decreases were comparatively small.

Five of the ten manufacturing industries surveyed but not included in the bureau's indexes reported more employees in March than in February; these were rayon, aircraft, paint and varnish, miscellaneous rubber goods, and beverages; radio, jewelry, beet sugar, cash registers, etc., and typewriters reported fewer employees in March than in February.

Employment increased in March in five of the nine geographic divisions: The South Atlantic division gained 2.4 per cent; the New England, East North Central, and Pacific divisions each gained 1.2 per cent; and the East South Central division gained 0.9 per cent. Of the losses in the remaining four divisions that in the Middle Atlantic division was less than one-tenth of 1 per cent.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL MANUFACTURING ESTABLISHMENTS IN FEBRUARY AND MARCH, 1931, BY INDUSTRIES

Industry	Establishments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		February, 1931	March, 1931		February, 1931	March, 1931	
Food and kindred products	**2,008**	**225,562**	**221,418**	(1)	**$5,718,815**	**$5,546,841**	(1)
Slaughtering and meat packing	214	87,991	84,349	−4.1	2,295,302	2,150,757	−6.3
Confectionery	329	36,149	35,461	−1.9	639,878	624,582	−2.4
Ice cream	342	11,758	11,989	+2.0	394,922	398,652	+0.9
Flour	400	16,143	15,896	−1.5	414,991	401,948	−3.1
Baking	707	64,165	64,133	−(2)	1,695,021	1,684,689	−0.6
Sugar refining, cane	16	9,356	9,620	+2.8	278,701	286,213	+2.7
Textiles and their products	**2,329**	**528,828**	**543,597**	(1)	**9,793,651**	**10,153,131**	(1)
Cotton goods	444	161,872	169,679	+4.8	2,326,629	2,469,514	+6.1
Hosiery and knit goods	350	83,785	84,629	+1.0	1,414,476	1,443,392	+2.0
Silk goods	262	58,222	57,490	−1.3	1,121,539	1,087,248	−3.1
Woolen and worsted goods	183	50,784	51,926	+2.2	1,079,694	1,097,087	+1.6
Carpets and rugs	30	17,119	18,166	+6.1	393,182	404,841	+3.0
Dyeing and finishing textiles	116	37,015	36,988	−0.1	952,064	935,189	−1.8
Clothing, men's	342	59,196	60,624	+2.4	1,182,353	1,245,398	+5.3
Shirts and collars	103	16,187	16,784	+3.7	221,596	233,804	+5.5
Clothing, women's	382	30,710	32,379	+5.4	800,202	880,269	+10.0
Millinery and lace goods	117	13,938	14,932	+7.1	301,916	356,389	+18.0
Iron and steel and their products	**1,955**	**543,400**	**548,219**	(1)	**13,569,953**	**13,920,561**	(1)
Iron and steel	190	226,320	229,623	+1.5	5,962,330	6,225,378	+4.4
Cast-iron pipe	45	9,167	9,445	+3.0	190,339	205,625	+8.0
Structural-iron work	174	22,906	22,798	−0.5	580,209	574,046	−1.1
Foundry and machine-shop products	1,082	195,334	195,375	+(2)	4,770,170	4,837,457	+1.4
Hardware	72	23,780	23,807	+0.1	480,093	489,034	+1.9
Machine tools	148	23,307	23,264	−0.2	566,346	573,634	+1.3
Steam fittings and steam and hot-water heating apparatus	108	26,249	26,299	+0.2	642,178	610,946	−4.9
Stoves	136	16,337	17,608	+7.8	378,288	404,441	+6.9
Lumber and its products	**1,443**	**165,002**	**164,378**	(1)	**2,969,360**	**3,011,658**	(1)
Lumber, sawmills	651	87,797	87,299	−0.6	1,443,699	1,474,834	+2.2
Lumber, millwork	341	24,662	24,746	+0.3	506,153	511,670	+1.1
Furniture	451	52,543	52,333	−0.4	1,019,508	1,024,554	+0.5
Leather and its products	**429**	**123,697**	**128,191**	(1)	**2,436,514**	**2,599,499**	(1)
Leather	131	23,481	23,732	+1.1	543,151	556,685	+2.5
Boots and shoes	298	100,216	104,459	+4.2	1,893,363	2,042,814	+7.9
Paper and printing	**1,567**	**211,962**	**212,268**	(1)	**6,747,675**	**6,848,545**	(1)
Paper and pulp	213	52,845	52,624	−0.4	1,324,455	1,311,594	−1.0
Paper boxes	313	24,336	24,382	+0.2	524,046	539,780	+3.0
Printing, book and job	596	57,627	56,544	−1.9	1,892,493	1,901,507	+0.5
Printing, newspapers	445	77,154	78,718	+2.0	3,006,681	3,095,664	+3.0
Chemicals and allied products	**462**	**100,010**	**96,937**	(1)	**2,838,889**	**2,698,542**	(1)
Chemicals	154	36,924	36,207	−1.9	978,594	974,422	−0.4
Fertilizers	208	11,131	14,059	+26.3	181,773	214,099	+17.8
Petroleum refining	100	51,955	46,671	−10.2	1,678,522	1,510,021	−10.0
Stone, clay, and glass products	**1,060**	**98,009**	**101,849**	(1)	**2,229,556**	**2,333,246**	(1)
Cement	112	17,890	18,879	+5.5	463,766	489,777	+5.6
Brick, tile, and terra cotta	690	26,495	28,363	+7.1	516,725	558,065	+8.0
Pottery	115	17,432	17,348	−0.5	368,159	379,598	+3.1
Glass	143	36,192	37,259	+2.9	880,906	905,806	+2.8
Metal products, other than iron and steel	**238**	**43,643**	**43,983**	(1)	**1,003,076**	**1,028,288**	(1)
Stamped and enameled ware	78	16,505	16,501	−(2)	363,129	365,082	+0.5
Brass, bronze, and copper products	160	27,138	27,482	+1.3	639,947	663,206	+3.6
Tobacco products	**219**	**59,605**	**59,208**	(1)	**817,689**	**851,105**	(1)
Chewing and smoking tobacco and snuff	227	9,356	9,196	−1.7	145,662	139,341	−4.3
Cigars and cigarettes	192	50,249	50,012	−0.5	672,027	711,764	+5.9

Footnotes at end of table.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL MANUFACTURING ESTABLISHMENTS IN FEBRUARY AND MARCH, 1931, BY INDUSTRIES—Continued

Industry	Establishments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		February, 1931	March, 1931		February, 1931	March, 1931	
Vehicles for land transportation	**1,255**	**403,849**	**415,208**	(1)	**$11,208,783**	**$11,966,021**	(1)
Automobiles	206	271,028	284,801	+5.1	7,374,948	8,196,033	+11.1
Carriages and wagons	50	744	776	+4.3	15,680	16,683	+6.4
Car building and repairing, electric-railroad	448	29,102	28,999	−0.4	880,953	894,899	+1.6
Car building and repairing, steam-railroad	551	102,975	100,632	−2.3	2,937,202	2,858,406	−2.7
Miscellaneous industries	**496**	**274,199**	**267,199**	(1)	**7,292,901**	**7,146,651**	(1)
Agricultural implements	84	19,207	16,840	−12.3	480,082	387,278	−19.3
Electrical machinery, apparatus, and supplies	211	161,302	160,040	−0.8	4,394,953	4,394,343	−(2)
Pianos and organs	64	5,328	5,367	+0.7	122,340	129,850	+6.1
Rubber boots and shoes	12	14,056	11,515	−18.1	234,135	172,416	−26.4
Automobile tires and inner tubes	38	38,436	38,541	+0.3	1,054,942	1,097,310	+4.0
Shipbuilding	87	35,870	34,896	−2.7	1,006,449	965,454	−4.1
Total—54 industries used in computing index numbers of employment and pay roll	**13,461**	**2,777,766**	**2,802,485**	(1)	**66,626,862**	**68,103,488**	(1)
Industries added since February, 1929, for which data for the index base year (1926) are not available	**973**	**138,931**	**135,040**	(3)	**3,407,052**	**3,433,901**	(3)
Rayon	18	21,225	22,262	+4.9	429,616	456,340	+6.2
Radio	44	22,775	17,897	−21.4	492,998	429,348	−12.9
Aircraft	42	8,475	8,612	+1.6	265,624	295,126	+11.1
Jewelry	158	13,829	13,521	−2.2	287,299	306,465	+6.7
Paint and varnish	262	15,798	15,993	+1.2	437,433	448,450	+2.5
Rubber goods, other than boots, shoes, tires, and inner tubes	79	17,081	17,246	+1.0	407,151	416,798	+2.4
Beet sugar	60	2,540	2,259	−11.1	86,265	78,603	−8.9
Beverages	250	10,608	10,777	+1.6	314,856	324,710	+3.1
Cash registers, adding machines, and calculating machines	48	17,249	17,128	−0.7	486,981	486,780	−(2)
Typewriters and supplies	12	9,351	9,345	−0.1	198,829	191,281	−3.8
All industries	**14,434**	**2,916,697**	**2,937,525**	(3)	**70,033,914**	**71,537,389**	(3)

RECAPITULATION BY GEOGRAPHIC DIVISIONS

GEOGRAPHIC DIVISIONS [4]							
New England	1,561	337,606	341,767	+1.2	$7,465,207	$7,616,153	+2.0
Middle Atlantic	3,602	867,131	866,994	−(2)	22,069,592	22,361,646	+1.3
East North Central	3,486	929,939	940,890	+1.2	23,950,101	24,854,527	+3.8
West North Central	1,386	162,130	159,593	−1.6	3,921,174	3,840,909	−2.0
South Atlantic	1,712	304,823	312,125	+2.4	5,586,142	5,779,617	+3.5
East South Central	692	105,115	106,038	+0.9	1,881,066	1,900,525	+1.0
West South Central	822	83,883	83,420	−0.6	1,875,355	1,864,693	−0.6
Mountain	307	26,921	26,422	−1.9	710,747	718,565	+1.1
Pacific	866	99,089	100,276	+1.2	2,574,530	2,600,754	+1.0
All divisions	**14,434**	**2,916,697**	**2,937,525**	(3)	**70,033,914**	**71,537,389**	(3)

[1] The per cent of change has not been computed for the reason that the figures in the preceding columns are unweighted and refer only to the establishments reporting; for the weighted per cent of change, wherein proper allowance is made for the relative importance of the several industries, so that the figures may represent all establishments of the country in the industries here represented, see Table 2.

[2] Less than one-tenth of 1 per cent.

[3] The per cent of change has not been computed for the reason that the figures in the preceding columns are unweighted and refer only to the establishments reporting.

[4] See footnotes 4 to 12, p. 168.

TABLE 2.—PER CENT OF CHANGE, FEBRUARY TO MARCH, 1931—12 GROUPS OF MANUFACTURING INDUSTRIES AND TOTAL OF 54 INDUSTRIES INCLUDED IN INDEX

[Computed from the index numbers of each group, which are obtained by weighting the index numbers of the several industries of the group, by the number of employees, or wages paid, in the industries]

Group	Per cent of change February to March, 1931		Group	Per cent of change February to March, 1931	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
Food and kindred products	−1.5	−2.7	Stone, clay, and glass products	+3.9	+4.7
Textiles and their products	+3.1	+4.3	Metal products, other than iron and steel	+0.8	+2.6
Iron and steel and their products	+0.8	+2.6	Tobacco products	−0.7	+4.5
Lumber and its products	−0.4	+1.6	Vehicles for land transportation	+1.3	+4.1
Leather and its products	+3.7	+6.6	Miscellaneous industries	−2.3	−1.6
Paper and printing	−0.1	+1.3			
Chemicals and allied products	−2.0	−3.7	**Total—54 industries**	**+0.9**	**+2.2**

Comparison of Employment and Pay-Roll Totals in Manufacturing Industries, March, 1931, with March, 1930

THE level of employment in manufacturing industries in March, 1931, was 16.7 per cent below the level of March, 1930, and pay-roll totals were 24.6 per cent lower.

Each of the 54 industries upon which the bureau's indexes are based had fewer employees and smaller pay-roll totals at the end of this 12-month interval than at the beginning with the exception of the woolen and worsted goods industry which showed a small increase in pay rolls.

The outstanding decreases in employment in individual industries were in the following: Agricultural implements (45.6 per cent), carriages and wagons, rubber boots and shoes, machine tools (36.2 per cent), fertilizers, sawmills, petroleum refining, foundry and machine-shop products (25.5 per cent), steam-car shops, brick, furniture, electrical goods, glass, carpets, structural ironwork, automobiles (19.2 per cent), stoves, hardware, and shipbuilding (18.4 per cent). The iron and steel industry had fallen off 15.6 per cent as to employment; cotton goods, 12.4 per cent; and woolen and worsted goods, 3 per cent.

Among the nine geographic divisions the New England and South Atlantic divisions showed the smallest falling off in employment in March, 1931, as compared with March, 1930, and the West South Central division lost the greatest number of employees. The percentage decreases in the several divisions ranged from 13.5 per cent to 23.3 per cent.

TABLE 3.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, MARCH, 1931, WITH MARCH, 1930

[The per cents of change for each of the 12 groups of industries and for the total of all industries are weighted in the same manner as are the per cents of change in Table 2]

Industry	Per cent of change March, 1931, compared with March, 1930	
	Number on pay roll	Amount of pay roll
Food and kindred products	**−7.3**	**−10.6**
Slaughtering and meat packing	−7.8	−8.9
Confectionery	−4.5	−12.3
Ice cream	−5.3	−2.4
Flour	−12.3	−18.8
Baking	−6.6	−10.4
Sugar refining, cane	−12.4	−15.8
Textiles and their products	**−10.8**	**−15.1**
Cotton goods	−12.4	−15.6
Hosiery and knit goods	−12.2	−22.1
Silk goods	−14.3	−22.3
Woolen and worsted goods	−3.0	+0.1
Carpets and rugs	−21.2	−21.0
Dyeing and finishing textiles	−4.4	−6.1
Clothing, men's	−10.7	−16.2
Shirts and collars	−16.9	−23.2
Clothing, women's	−7.2	−14.6
Millinery and lace goods	−11.6	−15.5
Iron and steel and their products	**−21.2**	**−33.2**
Iron and steel	−15.6	−27.2
Cast-iron pipe	−16.8	−23.3
Structural-iron work	−19.5	−30.9
Foundry and machine-shop products	−25.5	−38.6
Hardware	−18.7	−30.2
Machine tools	−36.2	−48.8
Steam fittings and steam and hot-water heating apparatus	−14.3	−28.2
Stoves	−19.1	−31.5
Lumber and its products	**−27.7**	**−38.1**
Lumber, sawmills	−31.8	−44.8
Lumber, millwork	−19.4	−28.6
Furniture	−22.4	−30.4
Leather and its products	**−9.1**	**−13.7**
Leather	−12.0	−15.5
Boots and shoes	−8.4	−13.2
Paper and printing	**−8.3**	**−11.3**
Paper and pulp	−14.2	−21.7
Paper boxes	−9.6	−13.8
Printing, book and job	−9.4	−11.9
Printing, newspapers	−1.2	−3.4
Chemicals and allied products	**−19.6**	**−21.1**
Chemicals	−7.1	−11.9
Fertilizers	−32.6	−36.1
Petroleum refining	−27.2	−26.3
Stone, clay, and glass products	**−19.5**	**−26.5**
Cement	−16.1	−23.9
Brick, tile, and terra cotta	−22.4	−33.7
Pottery	−13.1	−21.1
Glass	−21.4	−23.8
Metal products, other than iron and steel	**−16.2**	**−24.3**
Stamped and enameled ware	−14.7	−19.6
Brass, bronze, and copper products	−16.9	−26.1
Tobacco products	**−7.4**	**−15.6**
Chewing and smoking tobacco and snuff	−1.6	−10.0
Cigars and cigarettes	−8.1	−16.3
Vehicles for land transportation	**−21.2**	**−29.4**
Automobiles	−19.2	−30.3
Carriages and wagons	−42.0	−44.6
Car building and repairing, electric-railroad	−11.0	−14.0
Car building and repairing, steam-railroad	−23.8	−29.6
Miscellaneous industries	**−22.8**	**−31.4**
Agricultural implements	−45.6	−58.2
Electrical machinery, apparatus, and supplies	−21.8	−30.1
Pianos and organs	−15.2	−27.9
Rubber boots and shoes	−37.7	−60.3
Automobile tires and inner tubes	−14.9	−21.6
Shipbuilding	−18.4	−26.0
Total—54 industries	**−16.7**	**−24.6**

RECAPITULATION BY GEOGRAPHIC DIVISIONS

GEOGRAPHIC DIVISION		
New England	−13.5	−19.7
Middle Atlantic	−16.0	−24.5
East North Central	−19.0	−28.3
West North Central	−17.3	−23.1
South Atlantic	−13.7	−19.8
East South Central	−18.8	−24.8
West South Central	−23.3	−28.5
Mountain	−20.9	−25.5
Pacific	−19.7	−27.2
All divisions	**−16.7**	**−24.6**

Per Capita Earnings in Manufacturing Industries

ACTUAL per capita weekly earnings in March, 1931, for each of the 64 manufacturing industries surveyed by the Bureau of Labor Statistics, together with per cents of change in March, 1931, as compared with February, 1931, and March, 1930, are shown in Table 4.

Per capita earnings in March, 1931, for the combined 54 chief manufacturing industries of the United States, upon which the bureau's indexes of employment and pay rolls are based, were 1.3 per cent greater than in February, 1931, and 9.4 per cent less than in March, 1930.

The actual average per capita weekly earnings in March, 1931, for the 54 manufacturing industries were $24.30; the average per capita earnings for all of the 64 manufacturing industries surveyed were $24.35.

Per capita earnings given in Table 4 must not be confused with full-time weekly rates of wages. They are actual per capita weekly earnings computed by dividing the total number of employees reported into the total amount of pay roll in the week reported, and the "number of employees" includes all persons who worked any part of the period reported—that is, part-time workers as well as full-time workers.

TABLE 4.—PER CAPITA WEEKLY EARNINGS IN **MANUFACTURING** INDUSTRIES IN MARCH, 1931, AND COMPARISON WITH FEBRUARY, 1931, AND MARCH, 1930

Industry	Per capita weekly earnings in March, 1931	Per cent of change March, 1931, compared with—	
		February, 1931	March, 1930
Food and kindred products:			
Slaughtering and meat packing	$25.50	−2.3	−1.1
Confectionery	17.61	−0.5	−8.2
Ice cream	33.25	−1.0	+3.1
Flour	25.29	−1.6	−7.4
Baking	26.27	−0.6	−3.7
Sugar refining, cane	29.75	−0.1	−3.9
Textiles and their products:			
Cotton goods	14.55	+1.3	−3.4
Hosiery and knit goods	17.06	+1.1	−11.4
Silk goods	18.91	−1.8	−9.4
Woolen and worsted goods	21.13	−0.6	+3.5
Carpets and rugs	22.29	−3.0	+0.2
Dyeing and finishing textiles	25.28	−1.7	−1.8
Clothing, men's	20.54	+2.9	−6.2
Shirts and collars	13.93	+1.8	−7.5
Clothing, women's	27.19	+4.3	−8.3
Millinery and lace goods	23.87	+10.2	−4.3
Iron and steel and their products:			
Iron and steel	27.11	+2.9	−13.5
Cast-iron pipe	21.77	+4.9	−7.8
Structural-iron work	25.18	−0.6	−14.4
Foundry and machine-shop products	24.76	+1.4	−17.6
Hardware	20.54	+1.7	−14.3
Machine tools	24.66	+1.5	−19.6
Steam fittings and steam and hot-water heating apparatus	23.23	−5.0	−16.1
Stoves	22.97	−0.8	−15.0
Lumber and its products:			
Lumber, sawmills	16.89	+2.7	−19.3
Lumber, millwork	20.68	+0.8	−11.1
Furniture	19.58	+0.9	−10.4
Leather and its products:			
Leather	23.46	+1.4	−4.2
Boots and shoes	19.56	+3.5	−5.5

TABLE 4.—PER CAPITA WEEKLY EARNINGS IN MANUFACTURING INDUSTRIES IN MARCH, 1931, AND COMPARISON WITH FEBRUARY, 1931, AND MARCH, 1930—Contd.

Industry	Per capita weekly earnings in March, 1931	Per cent of change March, 1931, compared with—	
		February, 1931	March, 1930
Paper and printing:			
Paper and pulp	$24.92	−0.6	−9.1
Paper boxes	22.14	+2.8	−4.4
Printing, book and job	33.63	+2.4	−3.1
Printing, newspapers	39.33	+0.9	−2.2
Chemicals and allied products:			
Chemicals	26.91	+1.5	−5.2
Fertilizers	15.23	−6.7	−5.3
Petroleum refining	32.35	+0.1	+0.9
Stone, clay, and glass products:			
Cement	25.94	+0.1	−9.4
Brick, tile, and terra cotta	19.68	+0.9	−14.4
Pottery	21.88	+3.6	−9.2
Glass	24.31	−0.1	−2.8
Metal products, other than iron and steel:			
Stamped and enameled ware	22.12	+0.5	−5.6
Brass, bronze, and copper products	24.13	+2.3	−11.1
Tobacco products:			
Chewing and smoking tobacco and snuff	15.15	−2.7	−8.2
Cigars and cigarettes	14.23	+6.4	−9.0
Vehicles for land transportation:			
Automobiles	28.78	+5.8	−13.4
Carriages and wagons	21.50	+2.0	−4.5
Car building and repairing, electric-railroad	30.86	+1.9	−3.3
Car building and repairing, steam-railroad	28.40	−0.4	−7.5
Miscellaneous industries:			
Agricultural implements	23.00	−8.0	−23.4
Electrical machinery, apparatus, and supplies	27.46	+0.8	−10.4
Pianos and organs	24.19	+5.4	−15.0
Rubber boots and shoes	14.97	−10.1	−36.3
Automobile tires and inner tubes	28.47	+3.7	−7.8
Shipbuilding	27.67	−1.4	−9.4
Industries added since February, 1929, for which data for the index-base year (1926) are not available:			
Rayon	20.50	+1.3	−4.6
Radio	23.99	+10.8	−7.0
Aircraft	34.27	+9.3	+6.0
Jewelry	22.67	+9.1	−11.9
Paint and varnish	28.04	+1.3	−2.4
Rubber goods, other than boots, shoes, tires, and inner tubes	24.17	+1.4	−9.0
Beet sugar	34.80	+2.5	(1)
Beverages	30.13	+1.5	(1)
Cash registers, adding machines, and calculating machines	28.42	+0.7	(1)
Typewriters and supplies	20.47	−3.7	(1)

[1] Data not available.

Index Numbers of Employment and Pay-Roll Totals in Manufacturing Industries

TABLE 5 shows the general index of employment in manufacturing industries and the general index of pay-roll totals, by months, from January, 1923, to March, 1931, together with the average indexes for each of the years 1923 to 1930, inclusive.

TABLE 5.—GENERAL INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JANUARY, 1923, TO MARCH, 1931

[Monthly average, 1926=100]

Month	Employment									Pay-roll totals								
	1923	1924	1925	1926	1927	1928	1929	1930	1931	1923	1924	1925	1926	1927	1928	1929	1930	1931
Jan.	106.6	103.8	97.9	100.4	97.3	91.6	95.2	90.2	73.1	95.8	98.6	93.9	98.0	94.9	89.6	94.5	87.6	62.3
Feb.	108.4	105.1	99.7	101.5	99.0	93.0	97.4	90.3	74.1	99.4	103.8	99.3	102.2	100.6	93.9	101.8	90.7	67.0
Mar.	110.8	104.9	100.4	102.0	99.5	93.7	98.6	89.8	74.8	104.7	103.3	100.8	103.4	102.0	95.2	103.9	90.8	68.5
Apr.	110.8	102.8	100.2	101.0	98.6	93.3	99.1	89.1	.....	105.7	101.1	98.3	101.5	100.8	93.8	104.6	89.8	.....
May	110.8	98.8	98.9	99.8	97.6	93.0	99.2	87.7	.....	109.4	96.5	98.5	99.8	99.8	94.1	104.8	87.6	.....
June	110.9	95.6	98.0	99.3	97.0	93.1	98.8	85.5	.....	109.3	90.8	95.7	99.7	97.4	94.2	102.8	84.1	.....
July	109.2	92.3	97.2	97.7	95.0	92.2	98.2	81.6	.....	104.3	84.3	93.5	95.2	93.0	91.2	98.2	75.9	.....
Aug.	108.5	92.5	97.8	98.7	95.1	93.6	98.6	79.9	.....	103.7	87.2	95.4	98.7	95.0	94.2	102.1	73.9	.....
Sept.	108.6	94.3	98.9	100.3	95.8	95.0	99.3	79.7	.....	104.4	89.8	94.4	99.3	94.1	95.4	102.6	74.2	.....
Oct.	108.1	95.6	100.4	100.7	95.3	95.9	98.3	78.6	.....	106.8	92.4	100.4	102.9	95.2	99.0	102.3	72.7	.....
Nov.	107.4	95.5	100.7	99.5	93.5	95.4	94.8	76.5	.....	105.4	91.4	100.4	99.6	91.6	96.1	95.1	68.3	.....
Dec.	105.4	97.3	100.8	98.9	92.6	95.5	91.9	75.1	.....	103.2	95.7	101.6	99.8	93.2	97.7	92.0	67.4	.....
Av.	**108.8**	**98.2**	**99.2**	**100.0**	**96.4**	**93.8**	**97.5**	**83.7**	[1] **74.0**	**104.3**	**94.6**	**97.7**	**100.0**	**96.5**	**94.5**	**100.4**	**80.3**	[1] **65.9**

[1] Average for 3 months.

Index numbers showing relatively the variation in number of persons employed and in pay-roll totals in each of the 54 manufacturing industries surveyed by the Bureau of Labor Statistics and in each of the 12 groups of industries, and also general indexes for the combined 12 groups of industries, are shown in Table 6 for March, 1930, and January, February, and March, 1931.

In computing the general indexes and the group indexes the index numbers of separate industries are weighted according to the relative importance of the industries.

Following Table 6 are two charts which represent the 54 separate industries combined and show the course of pay-roll totals as well as the course of employment for each month of the years 1926 to 1930, and for January, February, and March, 1931, inclusive.

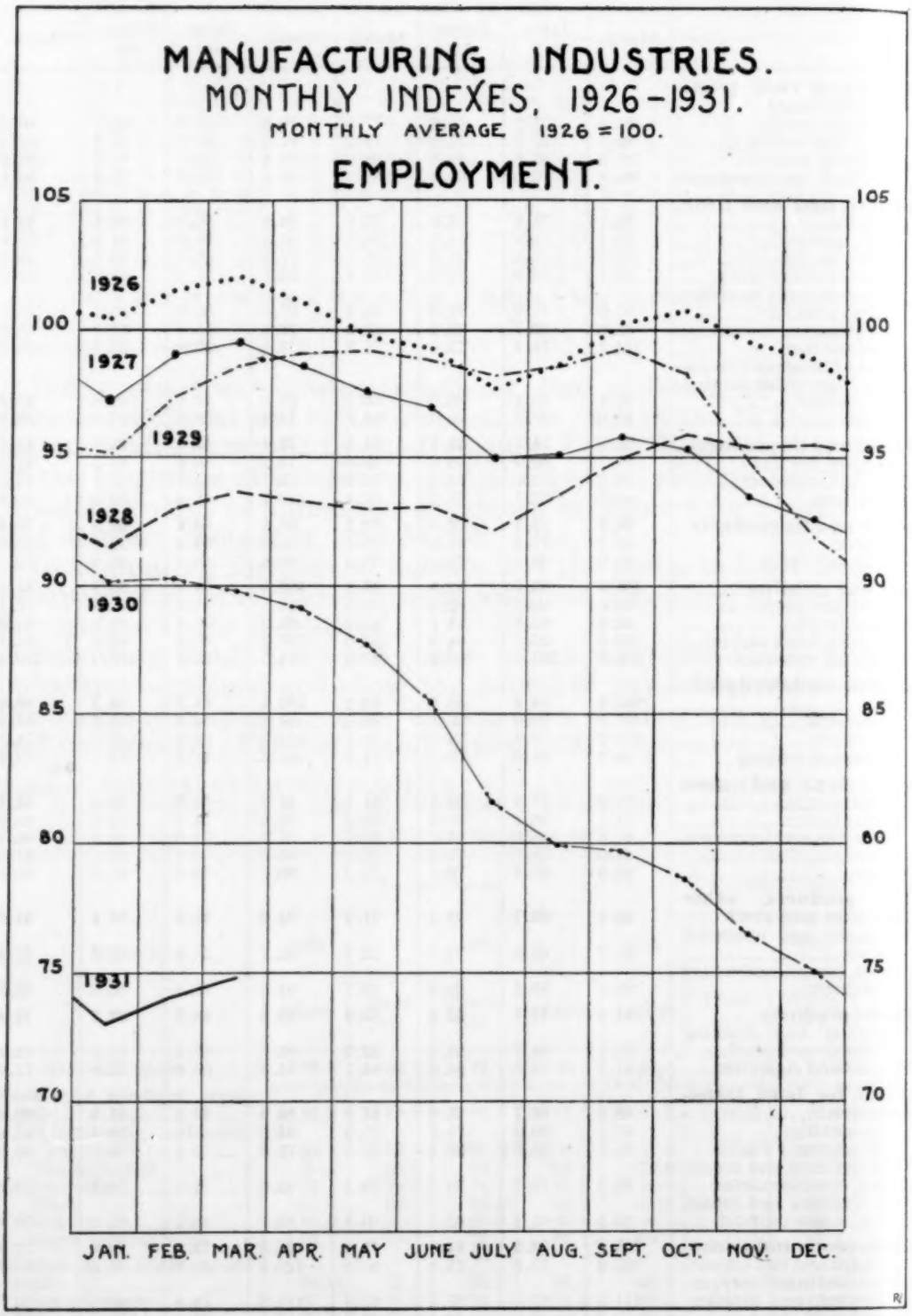
TABLE 6.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, MARCH, 1930, AND JANUARY, FEBRUARY, AND MARCH, 1931

[Monthly average, 1926=100]

Industry	Employment				Pay-roll totals			
	1930	1931			1930	1931		
	March	January	February	March	March	January	February	March
General index	**89.8**	**73.1**	**74.1**	**74.8**	**90.8**	**62.3**	**67.0**	**68.5**
Food and kindred products	**94.8**	**89.9**	**89.2**	**87.9**	**97.2**	**90.9**	**89.3**	**86.9**
Slaughtering and meat packing	97.8	96.6	94.0	90.2	99.0	101.7	96.3	90.2
Confectionery	86.2	83.1	83.9	82.3	88.0	81.1	79.1	77.2
Ice cream	80.5	74.3	74.7	76.2	78.8	73.9	76.2	76.9
Flour	100.0	90.4	89.0	87.7	104.9	87.7	87.9	85.2
Baking	97.0	90.5	90.6	90.6	99.2	89.6	89.5	88.9
Sugar refining, cane	93.8	81.4	79.9	82.2	100.4	79.3	82.3	84.5
Textiles and their products	**90.8**	**75.5**	**78.6**	**81.0**	**88.8**	**64.8**	**72.3**	**75.4**
Cotton goods	87.7	73.2	73.3	76.8	82.7	65.3	65.8	69.8
Hosiery and knit goods	91.2	75.0	79.3	80.1	94.2	64.4	72.0	73.4
Silk goods	97.1	81.6	84.3	83.2	98.1	70.8	78.6	76.2
Woolen and worsted goods	78.8	68.8	74.8	76.4	72.9	61.9	71.9	73.0
Carpet and rugs	96.6	67.0	71.7	76.1	81.8	50.2	62.8	64.6
Dyeing and finishing textiles	99.8	92.9	95.5	95.4	100.6	85.9	96.2	94.5

TABLE 6.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, MARCH, 1930, AND JANUARY, FEBRUARY, AND MARCH, 1931—Contd.

Industry	Employment				Pay-roll totals			
	1930	1931			1930	1931		
	March	January	February	March	March	January	February	March
Textiles and their products—Continued.								
Clothing, men's	86.8	71.2	75.6	77.5	79.0	53.9	62.9	66.2
Shirts and collars	89.3	67.2	71.5	74.2	81.3	52.9	59.1	62.4
Clothing, women's	106.3	87.8	93.6	98.6	109.9	72.1	85.3	93.8
Millinery and lace goods	99.9	76.8	82.4	88.3	101.9	63.3	73.0	86.1
Iron and steel and their products	**92.1**	**71.6**	**72.0**	**72.6**	**92.8**	**56.8**	**60.4**	**62.0**
Iron and steel	90.3	74.8	75.1	76.2	93.1	58.8	64.9	67.8
Cast-iron pipe	70.3	53.8	56.8	58.5	71.2	46.8	50.6	54.6
Structural-iron work	93.7	78.9	75.8	75.4	92.5	67.4	64.6	63.9
Foundry and machine-shop products	97.0	71.9	72.3	72.3	97.5	56.9	59.1	59.9
Hardware	85.2	69.7	69.2	69.3	79.1	53.5	54.1	55.2
Machine tools	114.3	74.4	73.0	72.9	113.9	56.6	57.6	58.3
Steam fittings and steam and hot-water heating apparatus	70.1	60.9	60.0	60.1	66.0	49.8	49.9	47.4
Stoves	80.0	52.7	60.0	64.7	73.4	38.5	47.1	50.3
Lumber and its products	**74.8**	**54.1**	**54.3**	**54.1**	**73.4**	**43.1**	**44.7**	**45.4**
Lumber, sawmills	73.7	50.9	50.6	50.3	74.7	40.0	40.3	41.2
Lumber, millwork	68.2	53.6	54.8	55.0	66.7	44.9	47.1	47.6
Furniture	81.7	62.7	63.7	63.4	75.3	48.4	52.2	52.4
Leather and its products	**90.5**	**76.7**	**79.4**	**82.3**	**82.2**	**58.6**	**66.5**	**70.9**
Leather	89.1	77.6	77.6	78.4	87.3	69.9	72.0	73.8
Boots and shoes	90.9	76.5	79.9	83.3	80.8	55.4	64.9	70.1
Paper and printing	**100.8**	**93.6**	**92.5**	**92.4**	**106.5**	**93.9**	**93.3**	**94.5**
Paper and pulp	95.6	82.5	82.4	82.0	98.5	74.9	77.9	77.1
Paper boxes	90.6	82.8	81.7	81.9	96.3	79.8	80.6	83.0
Printing, book and job	102.6	96.8	94.8	93.0	107.2	97.3	94.0	94.4
Printing, newspapers	109.2	107.1	105.8	107.9	114.3	108.1	107.2	110.4
Chemicals and allied products	**102.2**	**84.5**	**83.9**	**82.2**	**102.1**	**81.7**	**83.7**	**80.6**
Chemicals	95.6	90.8	90.5	88.8	99.0	84.3	87.5	87.2
Fertilizers	139.0	73.5	74.2	93.7	122.5	66.6	66.5	78.3
Petroleum refining	98.2	81.0	79.7	71.5	101.5	81.8	83.1	74.8
Stone, clay, and glass products	**75.9**	**57.5**	**58.8**	**61.1**	**72.2**	**45.9**	**50.7**	**53.1**
Cement	71.5	56.1	56.9	60.0	69.9	44.4	50.3	53.2
Brick, tile, and terra cotta	61.5	43.9	44.5	47.7	55.5	32.0	34.0	36.8
Pottery	91.0	78.5	79.5	79.1	85.4	60.1	65.4	67.4
Glass	91.9	67.3	70.1	72.2	90.7	59.3	67.3	69.1
Metal products, other than iron and steel	**85.1**	**69.7**	**70.7**	**71.3**	**84.5**	**58.6**	**62.4**	**64.0**
Stamped and enameled ware	85.2	68.6	72.7	72.7	83.7	54.8	67.0	67.3
Brass, bronze, and copper products	85.1	70.2	69.8	70.7	84.8	60.1	60.6	62.7
Tobacco products	**91.8**	**77.7**	**85.6**	**85.0**	**85.8**	**68.2**	**69.3**	**72.4**
Chewing and smoking tobacco and snuff	93.7	93.7	93.8	92.2	93.7	87.2	88.1	84.3
Cigars and cigarettes	91.5	75.6	84.6	84.1	84.8	65.9	67.0	71.0
Vehicles for land transportation	**86.0**	**66.7**	**66.9**	**67.8**	**89.9**	**49.4**	**61.0**	**63.5**
Automobiles	93.1	69.9	71.5	75.2	94.6	38.9	59.4	65.9
Carriages and wagons	65.3	34.5	36.4	37.9	73.8	35.2	38.4	40.9
Car building and repairing, electric-railroad	89.2	79.7	79.7	79.4	92.4	77.1	78.3	79.5
Car building and repairing, steam-railroad	79.5	63.1	62.1	60.6	85.1	58.2	61.5	59.9
Miscellaneous industries	**102.9**	**82.2**	**81.3**	**79.4**	**105.5**	**73.1**	**73.6**	**72.4**
Agricultural implements	122.0	77.6	75.8	66.4	128.6	66.8	66.6	53.7
Electrical machinery, apparatus, and supplies	111.3	87.9	87.7	87.0	115.2	78.8	80.5	80.5
Pianos and organs	50.0	43.3	42.1	42.4	45.1	33.1	30.6	32.5
Rubber boots and shoes	89.5	69.7	68.1	55.8	87.8	54.7	47.4	34.9
Automobile tires and inner tubes	80.3	68.9	68.1	68.3	80.7	59.0	60.9	63.3
Shipbuilding	119.6	103.7	100.3	97.6	124.8	98.3	96.2	92.3


MANUFACTURING INDUSTRIES.
MONTHLY INDEXES, 1926-1931.
MONTHLY AVERAGE 1926 = 100.
EMPLOYMENT.
105
100
95
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85
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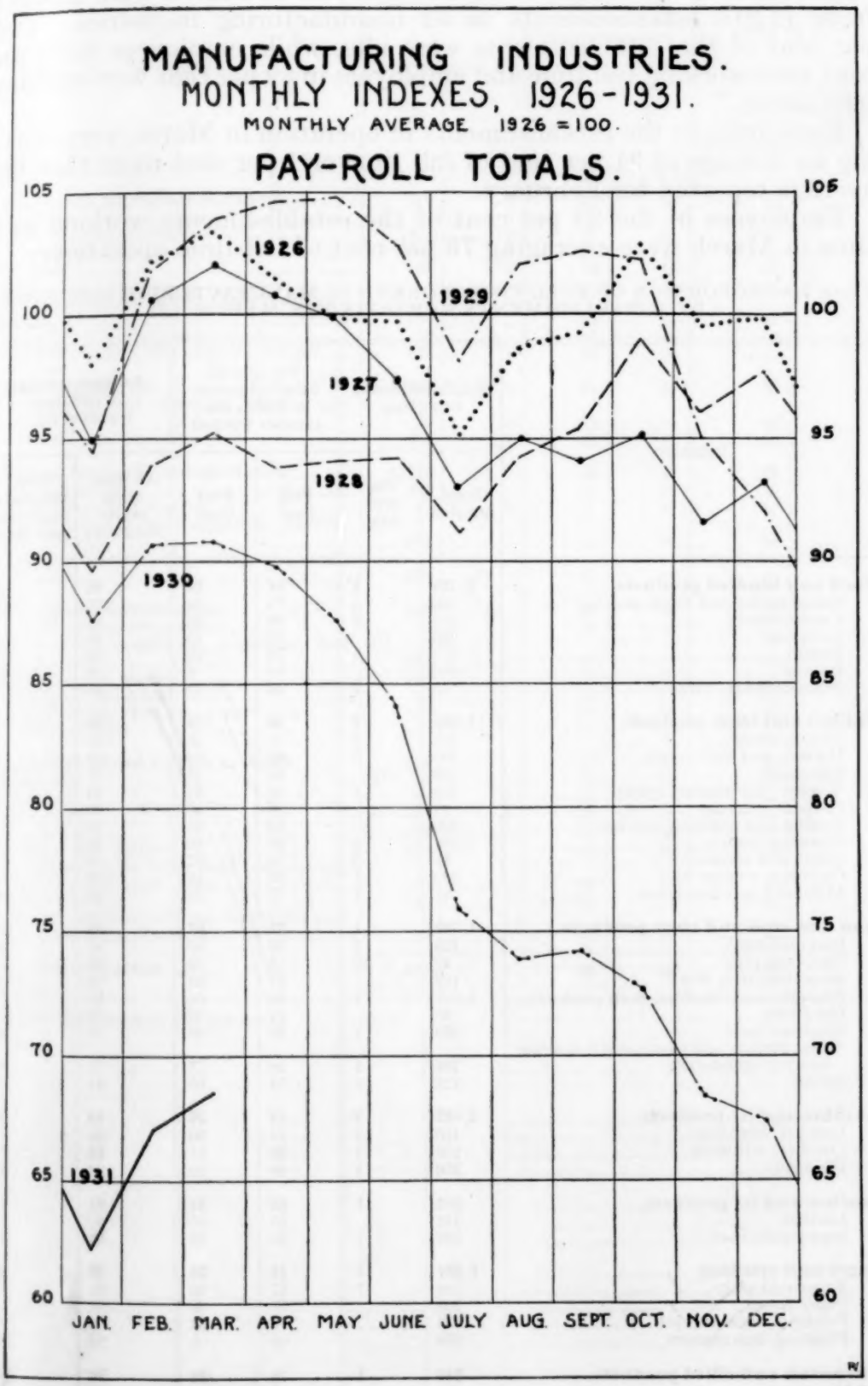
1930
1931
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.


MANUFACTURING INDUSTRIES.
MONTHLY INDEXES, 1926-1931.
MONTHLY AVERAGE 1926 = 100.
PAY-ROLL TOTALS.
105
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JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.

Time Worked in Manufacturing Industries in March, 1931

REPORTS as to working time of employees in March were received from 11,916 establishments in 62 manufacturing industries. Two per cent of the establishments were idle, while employees in 60 per cent were working full time and employees in 39 per cent were working part time.

Employees in the establishments in operation in March were working an average of 91 per cent of full time or 1 per cent more than the average reported for February.

Employees in the 39 per cent of the establishments working part time in March were averaging 76 per cent of full-time operation.

TABLE 7.—PROPORTION OF FULL TIME WORKED IN **MANUFACTURING** INDUSTRIES BY ESTABLISHMENTS REPORTING IN MARCH, 1931

Industry	Establishments reporting		Per cent of establishments in which employees worked		Average per cent of full time reported by—	
	Total number	Per cent idle	Full time	Part time	All operating establishments	Establishments operating part time
Food and kindred products	**1,765**	**1**	**81**	**19**	**96**	**80**
Slaughtering and meat packing	186	1	74	25	97	88
Confectionery	272	1	60	39	91	78
Ice cream	250	(1)	85	15	98	86
Flour	377	2	78	20	95	75
Baking	665		92	8	98	81
Sugar refining, cane	15	7	40	53	86	75
Textiles and their products	**1,925**	**2**	**70**	**29**	**94**	**79**
Cotton goods	416	3	59	38	91	77
Hosiery and knit goods	299	3	65	33	92	77
Silk goods	240	(1)	85	15	97	80
Woolen and worsted goods	172	1	68	31	94	79
Carpets and rugs	24		54	46	90	79
Dyeing and finishing textiles	109		63	37	92	78
Clothing, men's	254	2	68	30	94	82
Shirts and collars	81	2	70	27	94	78
Clothing, women's	249	1	84	16	98	83
Millinery and lace goods	81	1	77	22	98	88
Iron and steel and their products	**1,769**	**1**	**32**	**67**	**80**	**70**
Iron and steel	128	5	59	35	87	66
Cast-iron pipe	42	10	14	76	68	62
Structural-iron work	162		37	63	84	75
Foundry and machine-shop products	1,015	1	32	68	80	71
Hardware	58		21	79	80	74
Machine tools	139	1	19	80	75	68
Steam fittings and steam and hot-water heating apparatus	104	1	24	75	77	69
Stoves	121	1	34	65	81	70
Lumber and its products	**1,022**	**2**	**42**	**56**	**85**	**73**
Lumber, sawmills	416	3	47	50	86	73
Lumber, millwork	256	1	38	61	84	74
Furniture	350	1	40	59	84	73
Leather and its products	**382**	**1**	**62**	**37**	**91**	**77**
Leather	113		65	35	92	76
Boots and shoes	269	1	61	38	91	77
Paper and printing	**1,307**	**1**	**74**	**25**	**96**	**82**
Paper and pulp	148	7	57	36	91	77
Paper boxes	260		51	49	91	81
Printing, book and job	523		77	23	96	84
Printing, newspapers	376		92	8	99	89
Chemicals and allied products	**355**	**1**	**78**	**22**	**96**	**83**
Chemicals	123	1	69	30	95	83
Fertilizers	164	1	77	23	96	83
Petroleum refining	68		96	4	100	91

[1] Less than one-half of 1 per cent.

TABLE 7.—PROPORTION OF FULL TIME WORKED IN **MANUFACTURING** INDUSTRIES BY ESTABLISHMENTS REPORTING IN MARCH, 1931—Continued

Industry	Establishments reporting		Per cent of establishments in which employees worked		Average per cent of full time reported by—	
	Total number	Per cent idle	Full time	Part time	All operating establishments	Establishments operating part time
Stone, clay, and glass products	**716**	**9**	**56**	**35**	**91**	**77**
Cement	81	9	73	19	95	77
Brick, tile, and terra cotta	408	12	47	41	89	76
Pottery	102	2	51	47	89	77
Glass	125	9	75	16	96	77
Metal products, other than iron and steel	**202**	(1)	**42**	**57**	**87**	**78**
Stamped and enameled ware	65		58	42	90	77
Brass, bronze, and copper products	137	1	34	65	85	78
Tobacco products	**208**	**2**	**41**	**57**	**87**	**78**
Chewing and smoking tobacco and snuff	25	4	52	44	94	86
Cigars and cigarettes	183	2	39	59	86	77
Vehicles for land transportation	**1,121**	(1)	**58**	**42**	**91**	**78**
Automobiles	172		44	56	87	77
Carriages and wagons	47	6	47	47	87	74
Car building and repairing, electric-railroad	394		81	19	98	87
Car building and repairing, steam-railroad	508	(1)	45	54	87	76
Miscellaneous industries	**430**	(1)	**44**	**55**	**87**	**77**
Agricultural implements	75	3	35	63	81	71
Electrical machinery, apparatus, and supplies	181		42	58	88	80
Pianos and organs	50		28	72	81	74
Rubber boots and shoes	10		30	70	85	78
Automobile tires and inner tubes	33		27	73	84	78
Shipbuilding	81		77	23	96	84
Industries added in 1929 and 1930	**714**	(1)	**66**	**33**	**93**	**78**
Rayon	8		75	25	96	75
Radio	41	2	73	24	94	83
Aircraft	40	3	80	18	98	86
Jewelry	128		41	59	85	74
Paint and varnish	199		68	32	94	82
Rubber goods, other than boots, shoes, tires, and inner tubes	70		57	43	91	79
Beverages	193		79	21	95	77
Cash registers, adding machines, and computing machines	35		71	29	96	85
All industries	**11,916**	**2**	**60**	**39**	**91**	**76**

[1] Less than one-half of 1 per cent.

2. Employment in Nonmanufacturing Industries in March, 1931

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL **NONMANUFACTURING** ESTABLISHMENTS IN FEBRUARY AND MARCH, 1931, BY INDUSTRIES AND GEOGRAPHIC DIVISIONS

Geographic division	Establishments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		February, 1931	March, 1931		February, 1931	March, 1931	
ANTHRACITE MINING							
Middle Atlantic	**159**	**124,004**	**110,669**	**−10.8**	**$3,995,371**	**$2,782,146**	**−30.4**
BITUMINOUS COAL MINING							
Middle Atlantic	398	63,421	63,661	+0.4	$1,240,644	$1,177,776	−5.1
East North Central	176	34,139	32,536	−4.7	737,631	757,507	+2.7
West North Central	56	5,873	5,466	−6.9	114,039	109,449	−4.0
South Atlantic	335	54,004	52,891	−2.1	1,007,437	942,334	−6.5
East South Central	222	43,507	41,635	−4.3	671,753	627,716	−6.6
West South Central	27	2,183	1,639	−24.9	34,845	29,932	−14.1
Mountain	113	15,043	13,658	−9.2	362,111	331,125	−8.6
Pacific	10	1,559	1,542	−1.1	43,361	42,791	−1.3
All divisions	**1,337**	**219,729**	**213,028**	**−3.0**	**4,211,821**	**4,018,630**	**−4.6**
METALLIFEROUS MINING							
Middle Atlantic	7	1,156	1,095	−5.3	$23,964	$23,375	−2.5
East North Central	47	10,699	10,677	−0.2	216,415	216,713	+0.1
West North Central	46	6,396	6,224	−2.7	170,704	169,175	−0.9
East South Central	14	2,990	2,748	−8.1	55,582	50,097	−9.9
West South Central	59	2,624	2,229	−15.1	59,443	43,247	−27.2
Mountain	115	17,051	16,795	−1.5	500,248	489,089	−2.2
Pacific	32	2,130	2,119	−0.5	65,625	64,428	−1.8
All divisions	**320**	**43,046**	**41,887**	**−2.7**	**1,091,981**	**1,056,124**	**−3.3**
QUARRYING AND NONMETALLIC MINING							
New England	107	3,750	3,802	+1.4	$101,470	$105,816	+4.3
Middle Atlantic	121	4,899	5,195	+6.0	114,055	127,231	+11.6
East North Central	225	6,502	7,473	+14.9	162,052	182,219	+12.4
West North Central	76	1,869	1,843	−1.4	40,527	39,999	−1.3
South Atlantic	94	4,816	4,750	−1.4	78,431	75,578	−3.6
East South Central	61	2,897	2,970	+2.5	36,930	40,977	+11.0
West South Central	44	2,052	2,098	+2.2	46,196	47,184	+2.1
Mountain	5	62	64	+3.2	2,356	2,220	−5.8
Pacific	34	931	988	+6.1	24,992	28,420	+13.7
All divisions	**767**	**27,778**	**29,183**	**+5.1**	**607,009**	**649,644**	**+7.0**
CRUDE PETROLEUM PRODUCING							
Middle Atlantic	43	784	773	−1.4	$20,340	$21,859	+7.5
East North Central	5	37	34	−8.1	911	812	−10.9
West North Central	22	108	105	−2.8	2,248	2,332	+3.7
South Atlantic	14	326	324	−0.6	7,971	8,462	+6.2
East South Central	5	241	222	−7.9	5,478	5,254	−4.1
West South Central	392	19,440	19,195	−1.3	661,719	706,834	+6.8
Mountain	19	265	273	+3.0	9,532	9,594	+0.7
Pacific	73	7,353	7,217	−1.8	299,223	297,110	−0.7
All divisions	**573**	**28,554**	**28,143**	**−1.4**	**1,007,422**	**1,052,257**	**+4.5**

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL NONMANUFACTURING ESTABLISMENTS IN FEBRUARY AND MARCH, 1931, BY INDUSTRIES AND GEOGRAPHIC DIVISIONS—Continued

Geographic division	Establishments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		February, 1931	March, 1931		February, 1931	March, 1931	
TELEPHONE AND TELEGRAPH							
New England	721	27,528	27,349	−0.7	$851,873	$855,748	+0.5
Middle Atlantic	1,234	101,966	101,132	−0.8	3,285,421	3,381,206	+2.9
East North Central	1,435	72,016	71,600	−0.6	1,966,246	2,047,624	+4.1
West North Central	1,312	29,057	28,732	−1.1	723,079	746,349	+3.2
South Atlantic	560	20,477	20,389	−0.4	554,432	570,117	+2.8
East South Central	620	10,293	10,104	−1.8	225,525	230,895	+2.4
West South Central	694	17,543	17,383	−0.9	397,260	409,890	+3.2
Mountain	482	7,231	7,196	−0.5	174,451	182,486	+4.6
Pacific	912	30,326	30,207	−0.4	908,329	960,773	+5.8
All divisions	**7,970**	**316,437**	**314,092**	**−0.7**	**9,086,616**	**9,385,088**	**+3.3**
POWER, LIGHT, AND WATER							
New England	273	20,945	21,693	+3.6	$669,813	$715,219	+6.8
Middle Atlantic	322	61,626	61,079	−0.9	2,009,491	2,086,880	+3.9
East North Central	660	54,336	53,711	−1.2	1,858,986	1,869,815	+0.6
West North Central	419	27,442	27,385	−0.2	831,208	833,450	+0.3
South Atlantic	275	24,227	24,024	−0.8	732,221	763,280	+4.2
East South Central	175	6,994	6,663	−4.7	172,744	177,222	+2.6
West South Central	586	18,134	17,127	−5.6	499,007	506,106	+1.4
Mountain	125	5,946	5,775	−2.9	181,655	185,312	+2.0
Pacific	846	23,824	23,287	−2.3	779,238	804,901	+3.3
All divisions	**3,681**	**243,474**	**240,744**	**−1.1**	**7,734,363**	**7,942,185**	**+2.7**
ELECTRIC RAILROADS[1]							
New England	49	13,630	13,495	−1.0	$496,272	$486,356	−2.0
Middle Atlantic	160	37,525	37,177	−0.9	1,212,668	1,228,633	+1.3
East North Central	110	43,716	44,127	+0.9	1,430,804	1,463,058	+2.3
West North Central	69	13,546	13,307	−1.8	426,044	426,840	+0.2
South Atlantic	48	11,222	11,308	+0.8	317,437	321,912	+1.4
East South Central	11	3,547	3,462	−2.4	94,037	96,307	+2.4
West South Central	37	5,386	5,322	−1.2	147,591	149,539	+1.3
Mountain	15	1,988	1,991	+0.2	56,489	57,588	+1.9
Pacific	38	16,125	16,255	+0.8	523,255	531,608	+1.6
All divisions	**537**	**146,685**	**146,444**	**−0.2**	**4,704,597**	**4,761,841**	**+1.2**
WHOLESALE TRADE							
New England	291	8,252	8,267	+0.2	$247,746	$250,139	+1.0
Middle Atlantic	313	9,558	9,477	−0.8	319,081	321,255	+0.7
East North Central	292	12,101	11,923	−1.5	381,551	380,971	−0.2
West North Central	265	13,314	13,157	−1.2	399,108	403,172	+1.0
South Atlantic	192	3,754	3,722	−0.9	114,290	114,482	+0.2
East South Central	65	1,666	1,666	(2)	48,161	48,797	+1.3
West South Central	252	5,738	5,687	−0.9	175,818	181,499	+3.2
Mountain	78	1,767	1,734	−1.9	63,540	62,042	−2.4
Pacific	346	10,386	10,317	−0.7	360,926	364,014	+0.9
All divisions	**2,094**	**66,536**	**65,950**	**−0.9**	**2,110,221**	**2,126,371**	**+0.8**
RETAIL TRADE							
New England	1,052	36,227	36,338	+0.3	$882,453	$885,021	+0.3
Middle Atlantic	404	77,180	77,794	+0.8	2,018,708	2,032,417	+0.7
East North Central	2,744	74,203	74,489	+0.4	1,804,143	1,819,233	+0.8
West North Central	695	19,541	20,257	+3.7	423,280	435,380	+2.9
South Atlantic	1,053	20,586	20,892	+1.5	451,760	458,584	+1.5
East South Central	370	7,837	8,271	+5.5	152,779	157,329	+3.0
West South Central	192	12,675	12,545	−1.0	258,895	259,669	+0.3
Mountain	202	4,946	4,987	+0.8	109,727	112,247	+2.3
Pacific	1,781	40,367	40,225	−0.4	953,103	955,759	+0.3
All divisions	**8,493**	**293,562**	**295,798**	**+0.8**	**7,054,848**	**7,115,639**	**+0.9**

[1] Operation and maintenance exclusive of car shops.

[2] No change.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL **NONMANUFACTURING** ESTABLISHMENTS IN FEBRUARY AND MARCH, 1931, BY INDUSTRIES AND GEOGRAPHIC DIVISIONS—Continued

Geographic division	Establishments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		February, 1931	March, 1931		February, 1931	March, 1931	
HOTELS [3]							
New England	101	8,156	8,116	−0.5	$134,266	$133,469	−0.6
Middle Atlantic	389	47,999	47,712	−0.6	856,143	857,514	+0.2
East North Central	402	31,501	31,166	−1.1	554,110	542,210	−2.1
West North Central	293	15,266	15,242	−0.2	221,527	218,687	−1.3
South Atlantic	211	16,803	17,319	+3.1	244,622	255,191	+4.3
East South Central	100	6,312	6,312	(2)	78,319	77,375	−1.2
West South Central	154	9,498	9,583	+0.9	124,691	125,100	+0.3
Mountain	113	3,591	3,633	+1.2	60,964	62,311	+2.2
Pacific	356	17,394	17,492	+0.6	333,476	329,343	−1.2
All divisions	**2,119**	**156,520**	**156,575**	+(4)	**2,608,118**	**2,601,200**	**−0.3**
CANNING AND PRESERVING							
New England	55	1,341	1,526	+13.8	$24,916	$27,546	+10.6
Middle Atlantic	81	6,927	7,209	+4.1	147,872	155,722	+5.3
East North Central	221	5,882	5,956	+1.3	114,055	115,508	+1.3
West North Central	44	1,028	1,050	+2.1	18,890	20,131	+6.6
South Atlantic	89	5,556	5,457	−1.8	60,171	59,959	−0.4
East South Central	33	1,974	1,848	−6.4	15,592	15,997	+2.6
West South Central	33	1,189	1,167	−1.9	6,343	6,109	−3.7
Mountain	48	804	926	+15.2	22,798	24,767	+8.6
Pacific	199	6,287	8,842	+40.6	135,014	138,884	+2.9
All divisions	**[5] 803**	**30,988**	**33,981**	**+9.7**	**545,651**	**564,623**	**+3.5**
LAUNDRIES							
New England	35	1,952	1,944	−0.4	$38,259	$38,606	+0.9
Middle Atlantic	64	8,896	8,955	+0.7	183,599	187,014	+1.9
East North Central	60	4,084	4,007	−1.9	79,954	78,501	−1.8
West North Central	55	4,421	4,386	−0.8	78,594	77,893	−0.9
South Atlantic	36	3,988	3,903	−2.1	65,521	65,363	−0.2
East South Central	19	1,105	1,082	−2.1	14,654	14,310	−2.3
West South Central	13	877	883	+0.7	13,264	12,961	−2.3
Mountain	16	1,565	1,536	−1.9	27,943	27,437	−1.8
Pacific	53	3,316	3,336	+0.6	73,244	72,889	−0.5
All divisions	**351**	**30,204**	**30,032**	**−0.6**	**575,032**	**574,974**	**−(4)**
DYEING AND CLEANING							
New England	7	284	291	+2.5	$7,054	$7,660	+8.6
Middle Atlantic	15	689	685	−0.6	17,015	16,688	−1.9
East North Central	23	1,149	1,171	+1.9	25,456	25,512	+0.2
West North Central	43	896	921	+2.8	20,546	20,200	−1.7
South Atlantic	22	541	560	+3.5	10,550	11,378	+7.8
East South Central	8	309	294	−4.9	5,785	5,099	−11.9
West South Central	12	221	224	+1.4	4,902	4,920	+0.4
Mountain	17	249	254	+2.0	6,132	6,239	+1.7
Pacific	11	689	661	−4.1	15,916	16,459	+3.4
All divisions	**158**	**5,027**	**5,061**	**+0.7**	**113,356**	**114,155**	**+0.7**

[2] No change.

[3] The amount of pay roll given represents cash payments only; the additional value of board, room, and tips can not be computed.

[4] Less than one-tenth of 1 per cent.

[5] Not including 357 establishments belonging to this seasonal industry which were closed in both March and February; 30 of the 803 establishments reported were reopened in March after having been closed in February.

TABLE 2.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN **NONMANUFACTURING** INDUSTRIES, MARCH, 1931, WITH MARCH, 1930

Industry	Per cent of change March, 1931, compared with March, 1930		Industry	Per cent of change March, 1931, compared with March, 1930	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
Anthracite mining	−1.7	−10.7	Electric railroads	−8.5	−7.7
Bituminous coal mining	−9.9	−24.5	Wholesale trade	−10.5	−10.6
Metalliferous mining	−30.1	−41.9	Retail trade	−6.5	−8.4
Quarrying and nonmetallic mining	−15.7	−27.2	Hotels	−5.5	−10.5
Crude petroleum producing	−19.1	−19.8	Canning and preserving	+6.6	−1.0
Telephone and telegraph	−10.9	−7.5	Laundries	(1)	(1)
Power, light, and water	−3.0	+0.3	Dyeing and cleaning	(1)	(1)

[1] Data not available.

Indexes of Employment and Pay-Roll Totals for Nonmanufacturing Industries

TABLE 3 shows the index numbers of employment and pay-roll totals for anthracite, bituminous coal, and metalliferous mining, quarrying, crude petroleum producing, telephone and telegraph, power, light, and water, electric railroads, wholesale and retail trade, hotels, and canning and preserving, by months, from January, 1930, to March, 1931, with the monthly average for 1929 as 100.

TABLE 3.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS FOR **NONMANUFACTURING INDUSTRIES**, JANUARY, 1930, TO MARCH, 1931

[Monthly average, 1929=100]

Year and month	Anthracite mining		Bituminous coal mining		Metalliferous mining		Quarrying and nonmetallic mining		Crude petroleum producing		Telephone and telegraph		Power, light, and water		Operation and maintenance of electric railroads [1]		Wholesale trade		Retail trade		Hotels		Canning and preserving	
	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals
1930																								
January	102.1	105.8	102.5	101.4	95.7	92.7	79.6	71.9	92.7	94.0	101.6	105.1	99.6	99.7	97.1	97.8	100.0	100.0	98.9	99.7	100.4	100.3	46.1	50.3
February	106.9	121.5	102.4	102.1	92.3	92.5	79.8	73.5	90.8	88.6	100.2	101.9	98.8	100.4	95.1	95.7	98.7	98.3	94.4	96.0	102.4	103.8	45.7	51.5
March	82.6	78.5	98.6	86.4	90.9	90.8	83.0	80.0	89.3	91.3	99.4	105.8	99.7	102.1	94.4	95.4	97.7	99.7	93.9	95.5	102.4	104.4	49.7	50.8
April	84.1	75.0	94.4	81.7	89.3	88.3	87.4	85.4	86.8	86.6	98.9	103.4	100.7	102.6	95.2	97.1	97.3	97.9	97.3	97.5	100.1	100.3	74.8	72.6
May	93.8	98.8	90.4	77.5	87.5	85.6	90.8	90.2	89.8	85.4	99.7	103.2	103.4	101.5	95.2	96.0	96.8	97.4	96.7	97.3	98.0	98.4	65.7	66.9
June	90.8	94.3	88.4	75.6	84.6	81.6	90.3	90.9	90.2	87.1	99.8	103.4	104.6	107.8	94.8	97.0	96.5	98.6	93.9	96.8	98.0	98.1	83.0	81.5
July	91.6	84.0	88.0	68.9	80.5	71.9	89.9	75.5	89.9	88.5	100.0	106.6	105.9	106.7	95.3	95.6	96.0	96.0	89.0	91.7	101.3	99.8	126.3	112.7
August	80.2	78.8	89.2	71.1	79.0	71.0	89.3	85.8	87.7	86.0	98.8	102.5	106.4	106.6	92.9	92.1	95.0	93.6	85.6	87.6	101.5	98.6	185.7	172.0
September	93.8	91.6	90.5	74.9	78.1	69.9	87.7	82.5	85.0	84.0	96.8	102.2	105.2	106.1	91.8	90.5	94.8	93.6	92.0	92.4	100.1	97.1	246.6	214.8
October	99.0	117.2	91.8	79.4	77.2	68.6	84.7	79.3	85.2	82.6	94.5	100.9	104.8	105.6	91.0	88.9	94.2	92.9	95.5	95.1	97.5	95.5	164.7	140.0
November	97.2	98.0	92.5	79.1	72.8	63.4	78.3	66.8	83.6	80.0	93.0	97.9	103.4	103.7	89.3	87.7	92.6	91.0	98.4	96.8	95.2	93.6	96.7	82.9
December	99.1	100.0	92.5	77.7	70.1	59.9	70.2	59.9	77.4	77.2	91.6	101.3	103.2	106.3	88.8	88.6	92.9	91.3	115.1	107.7	93.5	91.5	61.6	57.4
Average	**93.4**	**95.3**	**93.4**	**81.3**	**83.2**	**78.0**	**84.3**	**79.3**	**87.4**	**85.9**	**97.9**	**102.9**	**103.0**	**104.3**	**93.4**	**93.5**	**96.0**	**95.9**	**95.9**	**96.2**	**99.2**	**98.5**	**103.9**	**96.1**
1931																								
January	90.6	89.3	93.9	73.3	68.3	55.0	64.4	50.4	74.8	71.5	90.5	96.3	99.2	98.6	86.9	85.6	89.5	87.5	90.0	89.4	95.0	91.0	48.9	46.1
February	91.0	100.7	91.5	68.3	65.3	54.6	66.6	54.4	73.2	70.0	89.2	94.8	97.8	99.7	86.6	87.1	88.2	88.4	87.1	86.7	96.8	93.7	48.3	48.6
March	81.2	70.1	88.8	65.2	63.5	52.8	70.0	58.2	72.2	73.2	88.6	97.9	96.7	102.4	86.4	88.1	87.4	89.1	87.8	87.5	96.8	93.4	53.0	50.3

[1] Not including electric-railroad car building and repairing; see vehicles group, manufacturing industries, p. 173, et seq.

Employment in Building Construction

THE Bureau of Labor Statistics here presents reports as to employment and pay rolls from establishments engaged in building construction in Washington, Providence, St. Louis, and their suburbs.

In addition, figures collected by the Maryland Commission of Labor and Statistics, Massachusetts Department of Labor and Industries, and the Industrial Commission of Wisconsin also are presented.

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN **BUILDING CONSTRUCTION,** FEBRUARY AND MARCH, 1931

Locality	Number of establishments	Employees		Per cent of change	Pay roll (1 week)		Per cent of change
		February, 1931	March, 1931		February, 1931	March, 1931	
Washington, D. C.	437	6,151	7,184	+16.8	$201,012	$231,686	+15.3
Providence, R. I.	225	1,935	2,150	+11.1	51,219	61,079	+19.3
St. Louis, Mo.	468	3,521	4,113	+16.8	119,730	147,107	+22.9
Baltimore, Md.	69	1,170	1,279	+9.3	28,182	32,871	+16.6
Massachusetts	504	7,729	7,370	−4.6	270,740	261,502	−3.3
Wisconsin	74	2,148	2,208	+2.8	56,527	58,444	+3.4
Total	1,777	22,654	24,304	+7.3	727,410	793,089	+9.0

The employees included in these reports are such a small part of the total number of employees engaged in building construction in the United States that building construction figures are not yet included in the summary tables.

Employment on Class I Steam Railroads in the United States

THE monthly trend of employment from January, 1923, to February, 1931, on Class I railroads—that is, all roads having operating revenues of $1,000,000 or over—is shown by the index numbers published in Table 1. These index numbers are constructed from monthly reports of the Interstate Commerce Commission, using the monthly average for 1926 as 100.

TABLE 1.—INDEX OF EMPLOYMENT ON CLASS I STEAM RAILROADS IN THE UNITED STATES, JANUARY, 1923, TO FEBRUARY, 1931

[Monthly average, 1926=100]

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931
January	98.3	96.9	95.6	95.8	95.5	89.3	88.2	86.3	73.7
February	98.6	97.0	95.4	96.0	95.3	89.0	88.9	85.4	72.7
March	100.5	97.4	95.2	96.7	95.8	89.9	90.1	85.5	.....
April	102.0	98.9	96.6	98.9	97.4	91.7	92.2	87.0	.....
May	105.0	99.2	97.8	100.2	99.4	94.5	94.9	88.6	.....
June	107.1	98.0	98.6	101.6	100.9	95.9	96.1	86.5	.....
July	108.2	98.1	99.4	102.9	101.0	95.6	96.6	84.7	.....
August	109.4	99.0	99.7	102.7	99.5	95.7	97.4	83.7	.....
September	107.8	99.7	99.9	102.8	99.1	95.3	96.8	82.2	.....
October	107.3	100.8	100.7	103.4	98.9	95.3	96.9	80.4	.....
November	105.2	99.0	99.1	101.2	95.7	92.9	93.0	77.0	.....
December	99.4	96.0	97.1	98.2	91.9	89.7	88.8	74.9	.....
Average	**104.1**	**98.3**	**97.9**	**100.0**	**97.5**	**92.9**	**93.3**	**83.5**	[1] 73.2

[1] Average for 2 months.

Table 2 shows the total number of employees on the 15th day each of February, 1930, and January and February, 1931, and the pay-roll totals for the entire months.

In these tabulations data for the occupational group reported as "executives, officials, and staff assistants" are omitted.

TABLE 2.—EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES, FEBRUARY, 1930, AND JANUARY AND FEBRUARY, 1931

[From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sum of the items under the respective groups]

Occupation	Number of employees at middle of month			Total earnings		
	February, 1930	January, 1931	February, 1931	February, 1930	January, 1931	February, 1931
Professional, clerical, and general	264,199	235,591	233,862	$37,700,303	$34,973,691	$33,456,314
Clerks	147,815	128,984	127,745	19,701,840	18,058,607	16,980,658
Stenographers and typists	24,477	22,087	21,911	3,145,132	2,914,072	2,815,371
Maintenance of way and structures	322,327	267,432	260,900	29,179,417	25,103,747	22,908,153
Laborers, extra gang and work train	38,037	23,521	22,064	2,519,395	1,617,582	1,403,660
Laborers, track and roadway section	162,558	138,058	135,486	10,656,122	9,293,881	8,123,353
Maintenance of equipment and stores	435,177	373,867	370,633	56,025,960	48,101,279	43,819,898
Carmen	92,438	77,931	77,372	13,483,393	11,098,393	9,999,311
Machinists	53,163	48,415	48,023	8,214,740	7,355,065	6,639,547
Skilled trades helpers	96,117	82,082	81,220	10,547,124	8,867,905	7,981,869
Laborers (shops, engine houses, power plants, and stores)	36,679	30,945	30,536	3,295,276	2,933,231	2,628,247
Common laborers (shops, engine houses, power plants, and stores)	49,226	40,213	39,806	3,683,902	3,024,305	2,711,554
Transportation, other than train, engine and yard	186,853	164,623	164,804	22,265,831	20,990,452	19,519,450
Station agents	28,965	28,135	28,015	4,374,636	4,524,263	4,185,344
Telegraphers, telephoners, and towermen	22,609	20,557	20,425	3,253,552	3,252,937	2,923,245
Truckers (stations, warehouses, and platforms)	30,243	23,060	24,261	2,654,190	2,094,385	2,015,963
Crossing and bridge flagmen and gatemen	20,053	19,156	19,110	1,542,177	1,489,237	1,469,880
Transportation (yard masters, switch tenders, and hostlers)	21,293	18,799	18,648	4,017,214	3,670,711	3,442,146
Transportation, train and engine	297,537	257,505	251,733	55,946,994	50,068,195	44,980,689
Road conductors	33,323	29,133	28,526	7,456,840	6,822,757	6,141,822
Road brakemen and flagmen	64,790	56,491	55,011	10,495,491	9,287,511	8,341,494
Yard brakemen and yard helpers	50,871	43,605	42,800	8,299,789	7,204,577	6,501,887
Road engineers and motormen	39,852	34,535	33,839	9,978,591	9,117,246	8,139,147
Road fireman and helpers	40,486	35,605	34,684	7,314,003	6,614,068	5,901,375
All employees	**1,527,386**	**1,317,817**	**1,300,580**	**205,135,719**	**182,908,075**	**168,126,650**

Changes in Employment and Pay Rolls in Various States

THE following data as to changes in employment and pay rolls have been compiled from reports received from the various State labor offices:

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES

Monthly period

State, and industry group	Per cent of change, February to March, 1931	
	Employment	Pay roll
Arkansas		
Auto dealers, garages	−0.1	−3.9
Auto bodies, wood parts	+6.1	+22.8
Bakeries and cafés	+.8	+2.3
Beverages	−13.7	−1.4
Brick and tile	+6.7	+10.2
Candy and confections	−1.4	−.2
Cooperage, heading, veneer	−11.8	−12.7
Cotton compresses, gins, and products	−7.5	−8.1
Coal mines	−46.5	−55.4
Furniture manufacture	+5.7	+.3
Flour, grain, feed, fertilizer	−6.7	−3.7
Glass factories	+55.0	+57.6
Handles, hubs, spokes	+12.5	−5.7
Hotels	+11.0	+20.5
Laundries	+.8	−20.9
Lumber mills	−.4	−1.6
Machinery, foundries, parts, smelters	−3.7	−10.9
Newspapers and printers	−1.0	−2.1
Packing houses	+2.3	−1.7
Petroleum products	−1.7	−11.2
Sand, gravel, stone	−28.0	−56.0
Textile mills, garments	−.9	+.8
Public utilities	+1.3	−3.5
Wholesale and retail	+.9	−.7
Miscellaneous	−5.1	−.1
All industries	−.1	−3.4
	January to February, 1931	
California		
Stone, clay, and glass products	−1.1	+15.9
Metals, machinery, and conveyances	−1.5	+5.0
Wood manufactures	+2.1	+4.8
Leather and rubber goods	+4.3	+5.2
Petroleum producing and refining	−1.0	+1.4
Other miscellaneous chemical products	−1.9	−.9
Printing and paper goods	−4.1	−1.8
Textiles	+.1	+6.9
Clothing, millinery, and laundering	+2.7	+5.5
Foods, beverages, and tobacco	+5.9	+10.0
Motion pictures	+1.4	+7.0
Miscellaneous	−7.6	−5.7
All industries	+.5	+4.8
Illinois		
Stone, clay, and glass products	−0.6	+7.9
Metals, machinery, and conveyances	+.5	+3.6
Wood products	+2.9	+14.7
Furs and leather goods	+1.6	+9.5
Chemicals, oils, paints, etc	+1.2	+9.3
Printing and paper goods	−3.8	−4.4
Textiles	+8.2	+12.7
Clothing and millinery	+4.6	+24.1
Foods, beverages, and tobacco	−1.9	−3.9

State, and industry group	Per cent of change, January to February, 1931	
	Employment	Pay roll
Illinois—Continued		
Miscellaneous	+2.6	−13.3
All manufacturing	+.2	+3.3
Trade, wholesale and retail	−5.6	−4.9
Services	−2.1	−.3
Public utilities	−.6	−1.1
Coal mining	+.5	−3.1
Building and contracting	−11.3	−14.7
All nonmanufacturing	−1.7	−2.0
All industries	−.5	+1.1
	February to March, 1931	
Iowa		
Food and kindred products	−3.5	
Textiles	+1.0	
Iron and steel works	−4.1	
Lumber products	+5.4	
Leather products	+4.0	
Paper products, printing, and publishing	−2.0	
Patent medicines, chemicals, and compounds	+6.9	
Stone and clay products	+13.9	
Tobacco and cigars	−2.3	
Railway-car shops	−16.9	
Various industries	+1.4	
All industries	−1.9	
Maryland		
Food products	−1.6	−3.1
Textiles	+4.1	+6.3
Iron and steel and their products	+1.2	−5.0
Lumber and its products	+2.3	+7.3
Leather and its products	+3.4	+8.6
Rubber tires	−1.4	−.4
Paper and printing	+.3	+5.2
Chemicals and allied products	+.8	+6.2
Stone, clay, and glass products	−6.2	−3.3
Metal products other than iron and steel	−1.3	+2.0
Tobacco products	+2.6	−10.1
Transportation equipment	−6.6	+2.2
Car building and repairing	−1.4	−1.0
Miscellaneous	+5.5	+12.0
All manufacturing	+1.0	+.5
Retail establishments	+3.2	−1.2
Wholesale establishments	−.2	−.6
Public utilities	−.6	+4.5
Coal mines	+1.2	+6.9
Hotels	−.2	−6.9
Quarries	+19.1	+27.8
Building construction	+8.0	+13.2
Laundries	−3.2	−.1
Cleaning and dyeing establishments	−1.6	+8.0

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—Continued

Monthly period—Continued

State, and industry group	Employment—index numbers (1925–1927 = 100)	
	January, 1931	February, 1931
Massachusetts		
Boot and shoe cut stock and findings	76.3	87.7
Boots and shoes	65.9	72.1
Bread and other bakery products	100.6	100.9
Clothing, men's	56.0	60.8
Clothing, women's	91.3	97.9
Confectionery	95.4	92.7
Cotton goods	50.4	50.7
Dyeing and finishing textiles	89.6	92.7
Electrical machinery, apparatus, and supplies	71.0	69.8
Foundry and machine-shop products	88.6	85.7
Furniture	72.9	75.2
Hosiery and knit goods	59.5	66.0
Leather, tanned, curried, and finished	90.1	92.8
Paper and wood pulp	82.1	82.5
Printing and publishing	100.8	99.6
Rubber footwear	78.4	72.4
Rubber goods, tires, and tubes	61.5	61.7
Silk goods	74.7	80.5
Textile machinery and parts	63.9	65.5
Woolen and worsted goods	56.5	65.5
All industries	69.4	71.2

State, and industry group	Per cent of change, January to February, 1931	
	Employment	Pay roll
Michigan		
Paper and printing	+0.9	+2.4
Chemicals and allied products	−2.0	+.3
Stone, clay, and glass products	−14.3	−1.7
Metal products, not iron and steel	+.7	+9.4
Iron and steel products	+.6	+10.8
Lumber and its products	+.6	+11.8
Leather and its products	+.5	+2.3
Food and kindred products	−2.7	−4.1
Textiles and their products	+8.0	+34.4
Tobacco products	+54.7	+37.2
Vehicles for land transportation	+1.3	+83.1
Miscellaneous	−.3	+6.0
All industries	+1.3	+53.8
New Jersey		
Food and kindred products	+3.1	+1.6
Textiles and their products	+1.8	+9.3
Iron and steel and their products	−1.9	−4.3
Lumber and its products	+.6	+2.8
Leather and its products	+4.4	+9.9
Tobacco products	+3.4	−10.9
Paper and printing	−4.2	+0.4
Chemicals and allied products	−1.1	+.7
Stone, clay, and glass products	−6.5	−1.0
Metal products other than iron and steel	+.5	+1.6
Vehicles for land transportation	−1.3	+12.4
Miscellaneous	−2.0	−1.4
All industries	−.7	+1.3

State, and industry group	Per cent of change, January to February, 1931	
	Employment	Pay roll
New York		
Stone, clay, and glass	+4.8	+8.5
Miscellaneous stone and minerals	−1.0	+4.0
Lime, cement, and plaster	+11.6	+22.8
Brick, tile, and pottery	+13.6	+13.5
Glass	−1.3	+1.3
Metals and machinery	−.4	+.4
Silver and jewelry	+3.4	+8.9
Brass, copper, and aluminum	−1.6	−2.0
Iron and steel	−.6	−4.0
Structural and architectural iron	+7.8	+4.3
Sheet metal and hardware	−.2	+1.8
Firearms, tools, and cutlery	+.4	−1.6
Cooking, heating, and ventilating apparatus	−5.2	−4.9
Machinery, including electrical apparatus	(1)	+1.2
Automobiles, carriages, and airplanes	+1.4	+3.2
Railroad equipment and repair	−3.6	−2.4
Boat and ship building	+6.4	+16.1
Instruments and appliances	+.4	+.7
Wood manufactures	−.8	+1.7
Saw and planing mills	+2.7	+5.1
Furniture and cabinetwork	−2.5	−2.2
Pianos and other musical instruments	−.8	+4.7
Miscellaneous wood	−1.3	+2.6
Furs, leather, and rubber goods	+3.2	+5.6
Leather	+3.7	+3.6
Furs and fur goods	+.6	−2.9
Shoes	+3.2	+5.4
Other leather and canvas goods	+4.4	+14.5
Rubber and gutta percha	+2.1	(2)
Pearl, horn, bone, etc	+3.0	+5.3
Chemicals, oils, paints, etc	−.9	+1.4
Drugs and chemicals	−2.8	−.1
Paints and colors	+1.4	+2.9
Oil products	−.7	+3.0
Miscellaneous chemicals	−.2	+.8

State, and industry group	Per cent of change, February to March, 1931	
	Employment	Pay roll
New York		
Stone, clay, and glass	+4.8	+8.5
Miscellaneous stone and minerals	−1.0	+4.0
Lime, cement, and plaster	+11.6	+22.8
Brick, tile, and pottery	+13.6	+13.5
Glass	−1.3	+1.3
Metals and machinery	−.4	+.4
Silver and jewelry	+3.4	+8.9
Brass, copper, and aluminum	−1.6	−2.0
Iron and steel	−.6	−4.0
Structural and architectural iron	+7.8	+4.3
Sheet metal and hardware	−.2	+1.8
Firearms, tools, and cutlery	+.4	−1.6
Cooking, heating, and ventilating apparatus	−5.2	−4.9
Machinery, including electrical apparatus	(1)	+1.2
Automobiles, carriages, and airplanes	+1.4	+3.2
Railroad equipment and repair	−3.6	−2.4
Boat and ship building	+6.4	+16.1
Instruments and appliances	+.4	+.7
Wood manufactures	−.8	+1.7
Saw and planing mills	+2.7	+5.1
Furniture and cabinetwork	−2.5	−2.2
Pianos and other musical instruments	−.8	+4.7
Miscellaneous wood	−1.3	+2.6
Furs, leather, and rubber goods	+3.2	+5.6
Leather	+3.7	+3.6
Furs and fur goods	+.6	−2.9
Shoes	+3.2	+5.4
Other leather and canvas goods	+4.4	+14.5
Rubber and gutta percha	+2.1	(2)
Pearl, horn, bone, etc	+3.0	+5.3
Chemicals, oils, paints, etc	−.9	+1.4
Drugs and chemicals	−2.8	−.1
Paints and colors	+1.4	+2.9
Oil products	−.7	+3.0
Miscellaneous chemicals	−.2	+.8

[1] Change of less than one-tenth of 1 per cent. [2] No change.

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—Continued

Monthly period—Continued

State, and industry group	Per cent of change, February to March, 1931	
	Employment	Pay roll
New York—Continued		
Paper	−0.6	−2.4
Printing and paper goods	+1.7	+5.4
Paper boxes and tubes	+.6	+6.4
Miscellaneous paper goods	−1.1	−2.0
Printing and bookmaking	+2.3	+6.1
Textiles	+2.6	+1.2
Silk and silk goods	+3.7	+6.2
Wool manufactures	−.2	−9.1
Cotton goods	+8.6	+10.0
Knit goods (excluding silk)	+1.8	+.9
Other textiles	+4.4	+10.4
Clothing and millinery	+6.6	+11.4
Men's clothing	+4.9	+7.6
Men's furnishings	+3.2	+2.4
Women's clothing	+9.2	+13.4
Women's underwear	+4.4	+6.0
Women's headwear	+24.0	+45.4
Miscellaneous sewing	−.9	+2.7
Laundering and cleaning	+2.0	+2.3
Food and tobacco	+.4	+1.4
Flour, feed, and cereal	−.5	+5.3
Canning and preserving	+1.4	+4.8
Other groceries	−2.3	−3.1
Meat and dairy products	−2.0	−2.0
Bakery products	[1]	−.3
Candy	+6.1	+4.9
Beverages	−1.8	+3.7
Tobacco	+2.8	+16.2
Water, light, and power	−.8	+4.4
All industries	+1.6	+3.4
Oklahoma		
Cottonseed-oil mills	−38.7	−41.0
Food production:		
Bakeries	−2.5	−1.2
Confections	−1.9	−2.2
Creameries and dairies	−1.6	−4.7
Flour mills	−2.7	−1.1
Ice and ice cream	−2.0	+1.9
Meat and poultry	−.9	−3.1
Lead and zinc:		
Mines and mills	−30.8	−34.3
Smelters	−11.0	−12.1
Metals and machinery:		
Auto repairs, etc	+3.3	+25.7
Machine shops and foundries	−.5	+9.1
Tank construction and erection	+7.3	−2.9
Oil industry:		
Producing and gasoline manufacture	−1.8	−2.6
Refineries	−8.9	−11.0
Printing: Job work	−2.5	−5.1
Public utilities:		
Steam-railway shops	−1.3	−1.0
Street railways	−1.6	−.2
Water, light, and power	−3.8	+17.1
Stone, clay, and glass:		
Brick and tile	+50.9	+54.1
Cement and plaster	−1.3	−12.6
Crushed stone	−15.8	−17.8
Glass manufacture	−15.2	−21.9
Textiles and cleaning:		
Textile manufacture	+1.4	+8.7
Laundries, etc	−2.1	−3.1
Oklahoma—Continued		
Woodworking:		
Sawmills	−6.8	−10.0
Millwork, etc	−2.6	−4.6
All industries	−6.2	−4.5

State, and industry group	Index numbers (1923–1925=100)—employment	
	February, 1931	March, 1931
Pennsylvania		
Metal products	77.0	75.4
Transportation equipment	55.2	[3] 53.2
Textile products	91.3	90.2
Foods and tobacco	105.0	105.1
Stone, clay, and glass products	57.6	59.3
Lumber products	56.7	57.4
Chemical products	88.0	91.1
Leather and rubber products	94.0	94.5
Paper and printing	94.4	94.8
All manufacturing	80.5	79.8
	Pay roll	
Metal products	63.6	62.7
Transportation equipment	43.4	[3] 41.5
Textile products	82.3	82.3
Foods and tobacco	95.1	96.2
Stone, clay, and glass products	41.9	45.8
Lumber products	40.3	52.7
Chemical products	89.3	89.3
Leather and rubber products	87.7	92.8
Paper and printing	99.6	99.6
All manufacturing	68.4	68.4

State, and industry group	Per cent of change, February to March, 1931	
	Employment	Pay roll
Texas		
Auto and body works	−0.6	
Bakeries	−1.6	
Confectioneries	−9.6	
Pure food products	−15.7	
Ice cream factories	+3.9	
Flour mills	+1.8	
Ice factories	+12.9	
Meat packing and slaughtering	−3.2	

[1] Change of less than one-tenth of 1 per cent.

[3] Preliminary figures.

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—Continued

Monthly period—Continued

State, and industry group	Per cent of change, February to March, 1931	
	Employment	Pay roll
Texas—Continued		
Cotton-oil mills	−21.4	
Cotton compresses	−11.6	
Men's clothing manufacture	+23.1	
Women's clothing manufacture	+21.8	
Brick, tile, and terra cotta	+12.6	
Foundries and machine shops	−.1	
Structural-iron works	+7.8	
Railroad car shops	−2.4	
Electric-railway car shops	−.1	
Petroleum refining	−1.3	
Sawmills	−13.9	
Lumber mills	−1.4	
Furniture manufacture	−1.2	
Paper-box manufacture	−4.4	
Cotton-textile mills	+2.2	
Cement plants	−.6	
Commercial printing	+1.4	
Newspaper publishing	.0	
Quarrying	+8.5	
Public utilities	−.6	
Retail stores	−1.1	
Wholesale stores	+.6	
Hotels	+1.5	
Miscellaneous	−.5	
All industries	−.6	
	January to February, 1931	
Wisconsin		
Manual		
Logging	−7.1	+14.0
Mining:		
Lead and zinc	+2.0	−10.1
Iron	−4.5	−4.8
Stone crushing and quarrying	−3.7	−22.5

State, and industry group	Per cent of change, January to February, 1931	
	Employment	Pay roll
Wisconsin—Continued		
Manual—Continued		
Manufacturing:		
Stone and allied industries	+6.6	+16.6
Metal	+1.1	+17.2
Wood	+2.9	+19.3
Rubber	+1.2	−5.3
Leather	+1.4	+10.6
Paper	−1.6	+1.1
Textiles	+10.2	+23.4
Foods	+.1	+2.8
Printing and publishing	+1.5	+2.3
Chemicals (including soap, glue, and explosives)	+2.1	+7.2
All manufacturing	+2.0	+13.9
Construction:		
Building	−16.6	−19.5
Highway	−17.0	−17.1
Railroad	−7.7	−1.9
Marine dredging, sewer digging	−23.0	−24.2
Communication:		
Steam railways	−.9	+3.7
Electric railways	−.2	+3.5
Express, telephone, and telegraph	−2.9	+1.3
Light and power	−.5	+5.2
Wholesale trade	−3.2	−2.1
Hotels and restaurants	+2.4	
Laundering and dyeing	+2.0	+2.6
Nonmanual		
Manufacturing, mines, and quarries	+1.0	+6.6
Construction	+.5	+.7
Communication	−1.5	+2.3
Wholesale trade	−.9	−.5
Retail trade—sales force only	−1.0	−4.2
Miscellaneous professional services	+1.6	+11.0

Yearly period

State, and industry group	Per cent of change, February, 1930, to February, 1931	
	Employment	Pay roll
California		
Stone, clay, and glass products	−26.4	−28.4
Metals, machinery, and conveyances	−23.0	−27.5
Wood manufactures	−15.9	−25.9
Leather and rubber goods	−18.7	−20.5
Chemicals, oils, paints, etc.	−34.1	−35.2
Printing and paper goods	−11.8	−12.3
Textiles	−7.7	−13.0

State, and industry group	Per cent of change, February, 1930, to February, 1931	
	Employment	Pay roll
California—Continued		
Clothing, millinery, and laundering	−11.4	−15.6
Foods, beverages, and tobacco	−8.3	−3.8
Miscellaneous [4]	−16.0	−8.3
All industries	−20.5	−23.3
Public utilities	−9.3	−11.1
Wholesale and retail	−8.3	−7.7

[4] Includes motion pictures.

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—Continued

Yearly period—Continued

State, and industry group	Employment—index numbers (1925-1927 =100)	
	February, 1930	February, 1931
Illinois		
Stone, clay, and glass products	77.4	63.6
Metals, machinery, and conveyances	108.2	77.0
Wood products	67.0	52.2
Furs and leather goods	95.1	81.2
Chemicals, oils, paints, etc.	96.6	86.1
Printing and paper goods	103.1	95.7
Textiles	90.6	84.7
Clothing and millinery	87.9	76.3
Foods, beverages, and tobacco	90.0	76.8
All manufacturing	98.0	76.5
Trade, wholesale and retail	76.4	65.0
Public utilities	103.2	95.3
Coal mining	77.0	88.7
Building and contracting	50.6	27.9
All industries	96.2	79.5
Massachusetts		
Boot and shoe cut stock and findings	108.1	87.7
Boots and shoes	86.5	72.1
Bread and other bakery products	106.3	100.9
Clothing, men's	71.0	60.8
Clothing, women's	98.9	97.9
Confectionery	88.1	92.7
Cotton goods	70.4	50.7
Dyeing and finishing textiles	94.7	92.7
Electrical machinery, apparatus, and supplies	85.2	69.8
Foundry and machine-shop products	106.1	85.7
Furniture	93.3	75.2
Hosiery and knit goods	84.3	66.0
Leather, tanned, curried, and finished	106.3	92.8
Paper and wood pulp	93.9	82.5
Printing and publishing	105.7	99.6
Rubber footwear	91.5	72.4
Rubber goods, tires, and tubes	85.7	61.7
Silk goods	96.3	80.5
Textile machinery and parts	90.5	65.5
Woolen and worsted goods	69.8	65.5
All industries	86.1	71.2

State, and industry group	Per cent of change, February, 1930, to February, 1931	
	Employment	Pay roll
Michigan		
Paper and printing	−10.9	−15.1
Chemicals and allied products	−5.5	−18.8
Stone, clay, and glass products	−33.1	−45.7
Metal products, not iron and steel	−22.3	−32.5
Iron and steel products	−34.5	−36.4
Lumber and its products	−30.3	−41.6
Leather and its products	−8.7	−18.4
Food and kindred products	−10.5	−16.7
Textiles and their products	−14.4	−6.4
Tobacco products	+8.2	+1.2
Vehicles for land transportation	−23.3	−35.9
Miscellaneous	−35.2	−31.1
All industries	−23.7	−34.2
	March, 1930, to March, 1931	
New York		
Stone, clay, and glass	−13.5	−19.4
Miscellaneous stone and minerals	−16.1	−23.8
Lime, cement, and plaster	−10.5	−14.1
Brick, tile, and pottery	−15.5	−24.1
Glass	−11.0	−13.3
Metals and machinery	−21.7	−30.1
Silver and jewelry	−20.1	−28.5
Brass, copper, and aluminum	−15.9	−22.8
Iron and steel	−22.8	−31.6
Structural and architectural iron	−18.4	−30.6
Sheet metal and hardware	−15.4	−22.5
Firearms, tools, and cutlery	−18.2	−30.3
Cooking, heating, and ventilating apparatus	−22.8	−35.8
Machinery, including electrical apparatus	−20.7	−28.8
Automobiles, carriages, and airplanes	−35.3	−42.9
Railroad equipment and repair	−22.2	−29.6
Boat and ship building	−31.6	−39.6
Instruments and appliances	−15.9	−25.0

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—Continued

Yearly period—Continued

State, and industry group	Per cent of change, March, 1930, to March, 1931	
	Employment	Pay roll
New York—Continued		
Wood manufactures	−16.3	−25.5
Saw and planing mills	−15.6	−20.7
Furniture and cabinetwork	−22.4	−30.8
Pianos and other musical instruments	−7.0	−26.7
Miscellaneous wood	−13.1	−13.7
Furs, leather, and rubber goods	−7.8	−15.1
Leather	−22.4	−26.6
Furs and fur goods	+1.8	−6.9
Shoes	−5.8	−11.8
Other leather and canvas goods	−6.9	−16.9
Rubber and guttapercha	−17.5	−29.3
Pearl, horn, bone, etc.	−18.3	−27.5
Chemicals, oils, paints, etc.	−8.1	−11.5
Drugs and chemicals	−4.1	−10.4
Paints and colors	−14.0	−17.1
Oil products	−9.4	−10.5
Miscellaneous chemicals	−8.3	−12.0
Paper	−15.1	−26.7
Printing and paper goods	−7.2	−7.2
Paper boxes and tubes	−11.1	−12.4
Miscellaneous paper goods	−10.6	−10.3
Printing and bookmaking	−6.1	−6.4
Textiles	−21.2	−25.9
Silk and silk goods	−20.1	−22.7
Wool manufactures	−18.9	−23.4
Cotton goods	−22.4	−28.1
Knit goods (excluding silk)	−21.7	−29.1
Other textiles	−23.6	−27.3
Clothing and millinery	−9.3	−13.0
Men's clothing	−4.9	−8.7
Men's furnishings	−20.1	−20.6
Women's clothing	−10.6	−16.1
Women's underwear	−8.2	−12.5
Women's headwear	−4.7	−7.9
Miscellaneous sewing	−16.8	−19.4
Laundering and cleaning	−1.4	−4.2
Food and tobacco	−10.2	−13.2
Flour, feed, and cereals	−11.4	−13.9
Canning and preserving	−4.0	−8.8
Other groceries	−22.4	−23.6
Meat and dairy products	−9.7	−12.4
Bakery products	−10.2	−10.4
Candy	+2.1	−8.7
Beverages	−8.1	−6.8
Tobacco	−4.6	−9.4
Water, light, and power	−2.4	+3.1
All industries	−14.9	−20.4
Oklahoma		
Cottonseed-oil mills	−30.3	−48.2
Food production:		
Bakeries	−9.7	−11.8
Confections	+72.4	+24.1
Creameries and dairies	+10.4	+1.9
Flour mills	−9.6	−15.9
Ice and ice cream	−21.2	−14.8
Meat and poultry	−9.0	−18.2
Lead and zinc:		
Mines and mills	−55.6	−63.6
Smelters	−12.2	−47.8
Metals and machinery:		
Auto repairs, etc.	−25.5	−35.0
Machine shops and foundries	−32.8	−49.4
Tank construction and erection	−32.2	−43.7
Oil industry:		
Producing and gasoline manufacture	−22.4	−25.5
Refineries	−5.1	−11.4
Printing: Job work	−6.6	−14.2
Public utilities:		
Steam-railway shops	−35.7	−33.8
Street railways	−23.1	−23.6
Water, light, and power	−21.5	−17.6
Stone, clay, and glass:		
Brick and tile	−43.5	−37.8
Cement and plaster	−15.9	−32.0
Crushed stone	−29.2	−30.0
Glass manufacture	−36.8	−43.6
Textiles and cleaning:		
Textile manufacture	+45.8	+21.5
Laundries, etc.	−11.5	−17.6
Woodworking:		
Sawmills	−51.2	−60.7
Millwork, etc.	−20.0	−35.0
All industries	−20.8	−26.8

	Index numbers (1923–1925=100)—employment	
	March, 1930	March, 1931
Pennsylvania		
Metal products	95.8	75.4
Transportation equipment	84.7	[1] 53.2
Textile products	105.3	90.2
Foods and tobacco	109.7	105.1
Stone, clay, and glass products	82.7	59.3
Lumber products	83.0	57.4
Chemical products	101.3	91.1
Leather and rubber products	98.2	94.5
Paper and printing	99.5	94.8
All manufacturing	96.8	79.8
	Pay roll	
Metal products	99.8	62.7
Transportation equipment	89.8	[1] 41.5
Textile products	107.4	82.3

[1] Preliminary figures.

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—Continued

Yearly period—Continued

State, and industry group	Index numbers (1923–1925=100)—pay roll	
	March, 1930	March, 1931
Pennsylvania—Contd.		
Foods and tobacco	105.8	96.2
Stone, clay, and glass products	82.7	45.8
Lumber products	81.8	52.7
Chemical products	105.5	89.3
Leather and rubber products	100.7	92.8
Paper and printing	113.3	99.6
All manufacturing	100.0	68.4

State, and industry group	Per cent of change, March, 1930, to March, 1931	
	Employment	Pay roll
Texas		
Auto and body works	−18.9	
Bakeries	−14.1	
Confectioneries	−10.2	
Pure-food products	−19.2	
Ice cream factories	−15.5	
Flour mills	−16.4	
Ice factories	−6.4	
Meat packing and slaughtering	−14.3	
Cotton-oil mills	−36.4	
Cotton compresses	+12.1	
Men's clothing manufacture	−7.7	
Women's clothing manufacture	+34.2	
Brick, tile, and terra cotta	−41.7	
Foundries and machine shops	−40.9	
Structural-iron works	−21.0	
Railroad car shops	−23.1	
Electric-railway car shops	−11.7	
Petroleum refining	−26.8	
Sawmills	−36.1	
Lumber mills	−23.0	
Furniture manufacture	−17.6	
Paper-box manufacture	−6.2	
Cotton-textile mills	−15.4	
Cement plants	−11.7	
Commercial printing	−7.7	
Newspaper publishing	−6.6	
Quarrying	−21.0	
Public utilities	+.2	
Retail stores	−12.7	
Wholesale stores	−6.0	
Hotels	−3.7	
Miscellaneous	−17.0	
All industries	−17.9	

WHOLESALE AND RETAIL PRICES

Retail Prices of Food in March, 1931

THE following tables are compiled from simple averages of the actual selling prices[1] received monthly by the Bureau of Labor Statistics from retail dealers.

Table 1 shows for the United States retail prices of food March 15, 1930, and February 15 and March 15, 1931, as well as the percentage changes in the year and in the month. For example, the retail price per pound of flour was 5.0 cents on March 15, 1930; 4.0 cents on February 15, 1931; and 3.9 cents on March 15, 1931. These figures show decreases of 22 per cent in the year and 3 per cent in the month.

The cost of various articles of food combined shows a decrease of 15.8 per cent March 15, 1931, as compared with March 15, 1930, and a decrease of 0.5 per cent March 15, 1931, as compared with February 15, 1931.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE MARCH 15, 1931, COMPARED WITH FEBRUARY 15, 1930, AND MARCH 15, 1931

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (−) Mar. 15, 1931, compared with—	
		Mar. 15, 1930	Feb. 15, 1931	Mar. 15, 1931	Mar. 15, 1930	Feb. 15, 1931
		Cents	*Cents*	*Cents*		
Sirloin steak	Pound	48.4	41.0	40.3	−17	−2
Round steak	do	43.0	35.9	35.2	−18	−2
Rib roast	do	35.9	30.5	30.3	−16	−1
Chuck roast	do	29.2	23.3	22.7	−22	−3
Plate beef	do	20.6	15.9	15.5	−25	−3
Pork chops	do	36.1	27.6	29.4	−19	+7
Bacon, sliced	do	42.6	39.2	38.6	−9	−2
Ham, sliced	do	54.1	49.3	48.0	−11	−3
Lamb, leg of	do	36.6	31.1	31.0	−15	−0.3
Hens	do	38.3	31.7	32.0	−16	+1
Salmon, red, canned	do	31.9	34.3	34.2	+7	−0.3
Milk, fresh	Quart	14.0	13.0	12.9	−8	−1
Milk, evaporated	16-oz. can	10.3	9.6	9.5	−8	−1
Butter	Pound	4.7	36.3	37.4	−20	+3
Oleomargarine (all butter substitutes)	do	26.1	22.7	21.9	−16	−4
Cheese	do	36.4	31.2	30.3	−17	−3
Lard	do	16.9	14.5	14.2	−16	−2
Vegetable lard substitute	do	24.4	23.7	23.7	−3	0
Eggs, strictly fresh	Dozen	35.3	27.2	28.5	−19	+5
Bread	Pound	8.8	8.0	7.9	−10	−1
Flour	do	5.0	4.0	3.9	−22	−3
Corn meal	do	5.3	5.0	5.0	−6	0
Rolled oats	do	8.7	8.4	8.3	−5	−1
Corn flakes	8-oz. package	9.4	9.3	9.2	−2	−1
Wheat cereal	28-oz. package	25.5	25.2	24.9	−2	−1

[1] In addition to monthly retail prices of food and coal, the bureau publishes periodically the prices of gas and electricity for household use in each of 51 cities. At present this information is being collected in June and December of each year.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE MARCH 15, 1931, COMPARED WITH FEBRUARY 15, 1930, AND MARCH 15, 1931—Continued

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (−) Mar. 15, 1931, compared with—	
		Mar. 15, 1930	Feb. 15, 1931	Mar. 15, 1931	Mar. 15, 1930	Feb. 15, 1931
		Cents	*Cents*	*Cents*		
Macaroni	Pound	19.5	18.0	17.7	−9	−2
Rice	do	9.5	8.9	8.6	−9	−3
Beans, navy	do	12.1	8.9	8.7	−28	−2
Potatoes	do	3.9	2.7	2.7	−31	0
Onions	do	5.0	3.6	3.5	−30	−3
Cabbage	do	8.5	4.2	4.1	−52	−5
Pork and beans	No. 2 can	11.2	10.3	10.0	−11	−3
Corn, canned	do	15.4	14.5	14.3	−7	−1
Peas, canned	do	16.4	15.4	15.0	−9	−3
Tomatoes, canned	do	12.6	11.1	10.8	−14	−3
Sugar	Pound	6.4	5.9	5.8	−9	−2
Tea	do	77.7	76.5	76.0	−2	−1
Coffee	do	41.9	37.3	36.3	−13	−3
Prunes	do	18.2	12.7	12.4	−32	−2
Raisins	do	12.2	11.3	11.3	−7	0
Bananas	Dozen	31.4	28.7	28.7	−9	0
Oranges	do	52.1	31.5	32.3	−38	+3
Weighted food index					−15.8	−0.5

Table 2 shows for the United States average retail prices of specified food articles on March 15, 1913, and on March 15 of each year from 1925 to 1931, together with percentage changes in March of each of these specified years compared with March, 1913. For example, the retail price per pound of rice was 8.6 cents in March, 1913; 10.9 cents in March, 1925; 11.7 cents in March, 1926; 10.8 cents in March, 1927; 10.1 cents in March, 1928; 9.8 cents in March, 1929; 9.5 cents in March, 1930; and 8.6 cents in March, 1931.

As compared with March, 1913, these figures show increases of 27 per cent in March, 1925; 36 per cent in March, 1926, 26 per cent in March, 1927; 17 per cent in March, 1928; 14 per cent in March, 1929; and 10 per cent in March, 1930. In March, 1931, the price was the same as it was in March, 1913.

The cost of the various articles of food combined showed an increase of 30.3 per cent in March, 1931, as compared with March, 1913.

TABLE 2.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE MARCH 15 OF CERTAIN SPECIFIED YEARS COMPARED WITH MARCH 15, 1913

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Average retail prices on Mar. 15—								Per cent of increase Mar. 15 of each specified year compared with Mar. 15, 1913						
	1913	1925	1926	1927	1928	1929	1930	1931	1925	1926	1927	1928	1929	1930	1931
	Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*							
Sirloin steak..pound..	24.7	39.6	40.7	41.1	44.9	47.9	48.4	40.3	60	65	66	82	94	96	63
Round steak....do....	21.3	33.6	34.9	35.6	39.1	42.2	43.0	35.2	58	64	67	84	98	102	65
Rib roast.....do....	19.4	29.1	29.9	30.4	33.1	35.5	35.9	30.3	50	54	57	71	83	85	56
Chuck roast.....do....	15.6	21.0	22.1	22.8	25.8	28.8	29.2	22.7	35	42	46	65	85	87	46
Plate beef.....do....	11.8	13.5	14.6	14.9	17.7	20.3	20.6	15.5	14	24	26	50	72	75	31
Pork chops.....do....	20.3	37.4	37.2	36.6	28.6	35.2	36.1	29.4	84	83	80	41	73	78	45
Bacon, sliced....do....	26.1	44.4	48.4	48.4	43.0	42.9	42.6	38.6	70	85	85	65	64	63	48
Ham, sliced.....do....	26.0	51.2	54.0	56.5	50.5	54.3	54.1	48.0	97	108	117	94	109	108	85
Lamb, leg of....do....	19.1	39.0	37.9	38.4	38.2	40.9	36.6	31.0	104	98	101	100	114	92	62
Hens.....do....	21.4	36.9	39.4	38.7	37.2	40.5	38.3	32.0	72	84	81	74	89	79	50
Salmon, red, canned ..pound..	.....	31.2	37.6	33.0	35.4	31.4	31.9	34.2	.....	.....	.....	.....	.....	.....	.....
Milk, fresh.....quart..	8.9	13.8	14.0	14.1	14.2	14.3	14.0	12.9	55	57	58	60	61	57	45
Milk, evaporated ..16-ounce can..	.....	11.2	11.6	11.4	11.2	11.4	10.3	9.5	.....	.....	.....	.....	.....	.....	.....
Butter.....pound..	41.4	55.5	53.6	59.2	57.3	58.4	46.7	37.4	34	29	43	38	41	13	[1] 10
Oleomargarine (all butter substitutes) ..pound..	.....	30.1	30.9	28.7	27.4	27.5	26.1	21.9	.....	.....	.....	.....	.....	.....	.....
Cheese.....do....	22.1	36.5	37.2	37.3	38.5	38.2	36.4	30.3	65	68	69	74	73	65	37
Lard.....do....	15.6	23.1	21.9	19.4	17.8	18.4	16.9	14.2	48	40	24	14	18	8	[1] 9
Vegetable lard substitute.....pound..	.....	25.8	25.6	25.2	24.9	24.8	24.4	23.7	.....	.....	.....	.....	.....	.....	.....
Eggs, strictly fresh ..dozen..	26.4	39.1	38.5	35.4	37.0	42.1	35.3	28.5	48	46	34	40	59	34	8
Bread.....pound..	5.6	9.4	9.4	9.4	9.1	9.0	8.8	7.9	68	68	68	63	61	57	41
Flour.....do....	3.3	6.4	6.2	5.5	5.3	5.1	5.0	3.9	94	88	67	61	55	52	18
Corn meal.....do....	2.9	5.5	5.2	5.1	5.2	5.3	5.3	5.0	90	79	76	79	83	83	72
Rolled oats.....do....	.....	9.2	9.1	9.1	9.0	8.9	8.7	8.3	.....	.....	.....	.....	.....	.....	.....
Corn flakes ...8-ounce package..	.....	11.1	11.0	10.8	9.7	9.5	9.4	9.2	.....	.....	.....	.....	.....	.....	.....
Wheat cereal ...28-ounce package..	.....	24.7	25.4	25.5	25.6	25.5	25.5	24.9	.....	.....	.....	.....	.....	.....	.....
Macaroni.....pound..	.....	20.4	20.3	20.1	19.9	19.6	19.5	17.7	.....	.....	.....	.....	.....	.....	.....
Rice.....do....	8.6	10.9	11.7	10.8	10.1	9.8	9.5	8.6	27	36	26	17	14	10	0
Beans, navy....do....	.....	10.4	9.4	9.1	10.7	14.0	12.1	8.7	.....	.....	.....	.....	.....	.....	.....
Potatoes.....do....	1.5	2.5	5.6	3.7	3.4	2.3	3.9	2.7	67	273	147	127	53	160	80
Onions.....do....	.....	6.3	5.9	5.9	6.3	8.4	5.0	3.5	.....	.....	.....	.....	.....	.....	.....
Cabbage.....do....	.....	5.2	7.2	5.2	5.2	5.7	8.5	4.1	.....	.....	.....	.....	.....	.....	.....
Pork and beans .....No. 2 can..	.....	12.6	12.1	11.6	11.4	11.9	11.2	10.0	.....	.....	.....	.....	.....	.....	.....
Corn, canned....do....	.....	17.9	16.6	15.9	15.9	15.9	15.4	14.3	.....	.....	.....	.....	.....	.....	.....
Peas, canned....do....	.....	18.5	17.7	17.0	16.7	16.7	16.4	15.0	.....	.....	.....	.....	.....	.....	.....
Tomatoes, canned .....No. 2 can..	.....	13.9	12.2	12.2	11.7	13.0	12.6	10.8	.....	.....	.....	.....	.....	.....	.....
Sugar, granulated ..pound..	5.4	7.7	6.7	7.4	7.1	6.5	6.4	5.8	43	24	37	31	20	19	7
Tea.....do....	54.3	75.1	76.1	77.6	77.4	77.6	77.7	76.0	38	40	43	43	43	43	40
Coffee.....do....	29.8	52.3	51.3	49.3	48.8	49.6	41.9	36.3	76	72	65	64	66	41	22
Prunes.....do....	.....	17.3	17.1	15.8	13.5	14.3	18.2	12.4	.....	.....	.....	.....	.....	.....	.....
Raisins.....do....	.....	14.6	14.6	14.3	13.6	11.6	12.2	11.3	.....	.....	.....	.....	.....	.....	.....
Bananas.....dozen..	.....	37.6	35.3	34.1	33.8	32.1	31.4	28.7	.....	.....	.....	.....	.....	.....	.....
Oranges.....do....	.....	48.3	47.8	46.9	52.9	38.7	52.1	32.3	.....	.....	.....	.....	.....	.....	.....
All articles combined [2]	.....	.....	.....	.....	.....	.....	.....	.....	55.9	64.9	58.5	56.1	57.8	54.8	30.3

[1] Decrease.

[2] Beginning with January, 1921, index numbers showing the trend of the retail cost of food have been composed of the articles shown in Tables 1 and 2, weighted according to the consumption of the average family. From January, 1913, to December, 1920, the index numbers included the following articles: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, lard, hens, flour, corn meal, eggs, butter, milk, bread, potatoes, sugar, cheese, rice, coffee, and tea.

Table 3 shows the trend in the retail cost of three important groups of food commodities, viz, cereals, meats, and dairy products, by years, from 1913 to 1930, and by months for 1929, 1930, and 1931. The articles within these groups are as follows:

Cereals: Bread, flour, corn meal, rice, rolled oats, corn flakes, wheat cereal, and macaroni.

Meats: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, hens, and leg of lamb.

Dairy products: Butter, cheese, fresh milk, and evaporated milk.

TABLE 3.—INDEX NUMBERS OF RETAIL COST OF CEREALS, MEATS, AND DAIRY PRODUCTS FOR THE UNITED STATES, 1913, TO MARCH, 1931

[Average cost in 1913=100.0]

Year and month	Cereals	Meats	Dairy products	Year and month	Cereals	Meats	Dairy products
1913: Average for year	100.0	100.0	100.0	1929—Continued.			
1914: Average for year	106.7	103.4	97.1	August	164.7	196.0	117.1
1915: Average for year	121.6	99.6	96.1	September	165.2	194.2	148.1
1916: Average for year	126.8	108.2	103.2	October	163.5	189.2	149.3
1917: Average for year	186.5	137.0	127.6	November	163.6	184.1	147.0
1918: Average for year	194.3	172.8	153.4	December	162.9	181.8	144.9
1919: Average for year	198.0	184.2	176.6	1930: Average for year	158.0	175.8	136.5
1920: Average for year	232.1	185.7	185.1	January	162.9	183.6	138.9
1921: Average for year	179.8	158.1	149.5	February	161.6	183.1	138.5
1922: Average for year	159.3	150.3	135.9	March	160.9	183.0	137.6
1923: Average for year	156.9	149.0	147.6	April	160.3	183.3	138.9
1924: Average for year	160.4	150.2	142.8	May	159.8	181.5	137.0
1925: Average for year	176.2	163.0	147.1	June	160.1	179.9	133.7
1926: Average for year	175.5	171.3	145.5	July	158.6	175.2	133.9
1927: Average for year	170.7	169.9	148.7	August	156.9	169.9	137.4
1928: Average for year	167.2	179.2	150.0	September	156.4	173.3	138.8
1929: Average for year	164.1	188.4	148.6	October	154.4	171.1	137.8
January	164.1	180.9	151.9	November	152.4	164.0	135.3
February	164.1	180.3	152.6	December	151.6	161.6	129.8
March	164.1	182.8	152.4	1931:			
April	164.1	187.5	148.9	January	147.1	159.5	123.6
May	163.5	191.2	147.5	February	144.6	153.4	120.2
June	163.0	192.4	146.8	March	142.4	152.5	120.5
July	163.5	195.9	146.8				

Index Numbers of Retail Prices of Food in the United States

IN TABLE 4 index numbers are given which show the changes in the retail prices of specified food articles, by years, for 1913 and 1920 to 1930,[2] by months for 1930 and 1931. These index numbers, or relative prices, are based on the year 1913 as 100, and are computed by dividing the average price of each commodity for each month and each year by the average price of that commodity for 1913. These figures must be used with caution. For example, the relative price of sirloin steak for the year 1930 was 182.7, which means that the average money price for the year 1930 was 82.7 per cent higher than the average money price for the year 1913. As compared with the relative price, 196.9 in 1929, the figures for 1930 show a decrease of 14.2 points, but a decrease of 7.2 per cent in the year.

In the last column of Table 4 are given index numbers showing changes in the retail cost of all articles of food combined. Since January, 1921, these index numbers have been computed from the average prices of the articles of food shown in Tables 1 and 2, weighted

[2] For index numbers of each month, January, 1913, to December, 1928, see Bulletin No. 396, pp. 44 to 61; and Bulletin No. 495, pp. 32 to 45. Index numbers for 1929 are published in each Labor Review, February, 1930, to February, 1931.

according to the average family consumption in 1918. (See March, 1921, issue, p. 25.) Although previous to January, 1921, the number of food articles varied, these index numbers have been so computed as to be strictly comparable for the entire period. The index numbers based on the average for the year 1913 as 100.0 are 127.0 for February, 1931, and 126.4 for March, 1931.

TABLE 4.—INDEX NUMBERS OF RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD BY YEARS, 1913, 1920, TO 1930, AND BY MONTHS FOR 1930 AND 1931

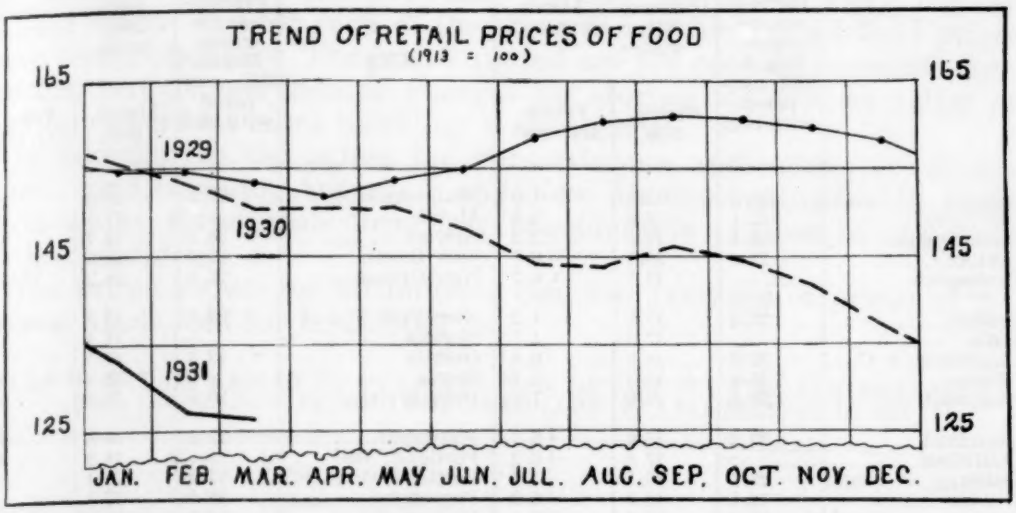
[Average for year 1913=100.0]

Year and month	Sirloin steak	Round steak	Rib roast	Chuck roast	Plate beef	Pork chops	Bacon	Ham	Hens	Milk	Butter	Cheese
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	172.1	177.1	167.7	163.8	151.2	201.4	193.7	206.3	209.9	187.6	183.0	188.2
1921	152.8	154.3	147.0	132.5	118.2	166.2	158.2	181.4	186.4	164.0	135.0	153.9
1922	147.2	144.8	139.4	123.1	105.8	157.1	147.4	181.4	169.0	147.2	125.1	148.9
1923	153.9	150.2	143.4	126.3	106.6	144.8	144.8	169.1	164.3	155.1	144.7	167.0
1924	155.9	151.6	145.5	130.0	109.1	146.7	139.6	168.4	165.7	155.1	135.0	159.7
1925	159.8	155.6	149.5	135.0	114.1	174.3	173.0	195.5	171.8	157.3	143.1	166.1
1926	162.6	159.6	153.0	140.6	120.7	188.1	186.3	213.4	182.2	157.3	138.6	165.6
1927	167.7	166.4	158.1	148.1	127.3	175.2	174.8	204.5	173.2	158.4	145.2	170.1
1928	188.2	188.3	176.8	174.4	157.0	165.7	163.0	196.7	175.6	159.6	147.5	174.2
1929	196.9	199.1	185.4	186.9	172.7	175.7	161.1	204.1	186.4	160.7	143.9	171.9
1930	182.7	184.8	172.7	170.0	155.4	171.0	156.7	198.5	166.7	157.3	120.4	158.8
January	192.9	195.5	183.3	184.4	172.7	168.1	157.0	199.3	178.4	159.6	121.9	169.2
February	191.3	194.2	181.8	184.4	171.9	167.6	157.8	200.7	179.3	158.4	122.7	167.0
March	190.6	192.8	181.3	182.5	170.2	171.9	157.8	201.1	179.8	157.3	121.9	164.7
April	190.2	193.3	181.3	182.5	168.6	176.7	157.4	200.4	179.3	157.3	125.6	162.9
May	190.2	192.8	179.8	179.4	164.5	171.9	156.7	200.7	175.6	157.3	120.9	162.0
June	188.6	191.5	177.3	175.6	160.3	174.3	156.7	200.7	167.6	157.3	113.1	157.9
July	182.3	184.3	171.7	166.3	149.6	173.8	156.7	200.0	161.5	157.3	114.1	155.2
August	175.6	176.7	163.1	155.6	138.8	174.8	155.6	198.1	158.7	157.3	123.8	153.4
September	177.2	178.0	166.7	160.0	142.1	186.2	158.1	198.9	159.6	157.3	127.2	154.8
October	175.2	176.2	164.1	158.7	142.1	180.5	157.8	197.4	158.7	157.3	124.8	154.8
November	170.5	170.9	160.6	154.4	139.7	156.2	155.9	193.7	153.1	157.3	118.5	152.9
December	168.9	169.1	159.6	153.8	139.7	149.5	153.0	191.4	150.2	151.7	111.0	150.2
1931: January	167.7	168.2	159.1	152.5	138.0	141.9	148.9	188.1	153.5	149.4	98.4	145.2
February	161.4	161.0	154.0	145.6	131.4	131.4	145.2	183.3	148.8	146.1	94.8	141.2
March	158.7	157.8	153.0	141.9	128.1	140.0	143.0	178.4	150.2	144.9	97.7	137.1

Year and month	Lard	Eggs	Bread	Flour	Corn meal	Rice	Potatoes	Sugar	Tea	Coffee	All articles[1]
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	186.7	197.4	205.4	245.5	216.7	200.0	370.6	352.7	134.7	157.7	203.4
1921	113.9	147.5	176.8	175.8	150.0	109.2	182.4	145.5	128.1	121.8	153.3
1922	107.6	128.7	155.4	154.5	130.0	109.2	164.7	132.7	125.2	121.1	141.6
1923	112.0	134.8	155.4	142.4	136.7	109.2	170.6	183.6	127.8	126.5	146.2
1924	120.3	138.6	157.1	148.5	156.7	116.1	158.8	167.3	131.4	145.3	145.9
1925	147.5	151.0	167.9	184.8	180.0	127.6	211.8	130.9	138.8	172.8	157.4
1926	138.6	140.6	167.9	181.8	170.0	133.3	288.2	125.5	141.0	171.1	160.6
1927	122.2	131.0	166.1	166.7	173.3	123.0	223.5	132.7	142.5	162.1	155.4
1928	117.7	134.5	162.5	163.6	176.7	114.9	158.8	129.1	142.3	165.1	154.3
1929	115.8	142.0	160.7	154.5	176.7	111.5	188.2	120.0	142.6	164.8	156.7
1930	107.6	118.8	155.4	142.4	176.7	109.2	211.8	112.7	142.5	136.2	147.1
January	108.9	160.6	158.9	154.5	180.0	110.3	229.4	120.0	143.4	147.0	155.4
February	108.2	136.8	157.1	154.5	176.7	110.3	229.4	118.2	143.2	143.3	153.0
March	107.0	102.3	157.1	151.5	176.7	109.2	229.4	116.4	142.8	140.6	150.1
April	106.3	100.0	157.1	148.5	176.7	110.3	241.2	114.5	142.5	138.9	151.2
May	105.7	97.7	157.1	145.5	176.7	109.2	252.9	114.5	142.5	137.2	150.1
June	105.1	97.4	157.1	145.5	176.7	109.2	247.1	110.9	143.0	136.2	147.9
July	103.2	101.7	157.1	139.4	176.7	109.2	194.1	110.9	142.6	135.6	144.0
August	104.4	112.5	155.4	136.4	176.7	109.2	182.4	110.9	142.3	134.6	143.7
September	110.8	124.9	155.4	133.3	176.7	110.3	188.2	107.3	142.1	132.6	145.6
October	112.0	129.9	153.6	130.3	176.7	109.2	182.4	105.5	141.9	131.2	144.4
November	110.8	140.2	151.8	127.3	173.3	106.9	170.6	107.3	141.4	129.9	141.4
December	105.7	120.6	151.8	124.2	173.3	105.8	170.6	107.3	141.4	129.2	137.2
1931: January	99.4	104.6	146.4	121.2	170.0	102.3	170.6	107.3	141.0	126.8	132.8
February	91.8	78.8	142.9	121.2	166.7	102.3	158.8	107.3	140.6	125.2	127.0
March	89.9	82.6	141.1	118.2	166.7	98.9	158.8	105.5	139.7	121.8	126.4

[1] 22 articles in 1913–1920; 42 articles in 1921–1931.

The curve shown in the chart below pictures more readily to the eye the changes in the cost of the food budget than do the index numbers given in the table.



Comparison of Retail Food Costs in 51 Cities

TABLE 5 shows for 39 cities the percentage of increase or decrease in the retail cost of food [3] March, 1931, compared with the average cost in the year 1913, in March, 1930, and February, 1931. For 12 other cities comparisons are given for the 1-year and the 1-month periods; these cities have been scheduled by the bureau at different dates since 1913. The percentage changes are based on actual retail prices secured each month from retail dealers and on the average consumption of these articles in each city.[4]

Effort has been made by the bureau each month to have all schedules for each city included in the average prices. For the month of March 99.5 per cent of all the firms supplying retail prices in the 51 cities sent in a report promptly. The following-named 45 cities had a perfect record; that is, every merchant who is cooperating with the bureau sent in his report in time for his prices to be included in the city averages: Atlanta, Baltimore, Birmingham, Boston, Bridgeport, Buffalo, Butte, Charleston, (S. C.), Chicago, Cincinnati, Columbus, Dallas, Denver, Detroit, Fall River, Houston, Indianapolis, Jacksonville, Kansas City, Little Rock, Los Angeles, Louisville, Manchester, Memphis, Minneapolis, Newark, New Haven, New Orleans, New York, Norfolk, Omaha, Philadelphia, Portland (Me.), Portland (Oreg.), Providence, Richmond, Rochester, St. Louis, St. Paul, Salt Lake City, San Francisco, Savannah, Scranton, Springfield (Ill.) and Washington.

[3] For list of articles see note 2, p. 200.
[4] The consumption figures used for January, 1913, to December, 1920, for each article in each city are given in the Labor Review for November, 1918, pp. 94 and 95. The consumption figures which have been used for each month beginning with January, 1921, are given in the Labor Review for March, 1921, p. 26.

TABLE 5.—PERCENTAGE CHANGE IN THE RETAIL COST OF FOOD IN MARCH, 1931, COMPARED WITH THE COST IN FEBRUARY, 1931, MARCH, 1930, AND WITH THE AVERAGE COST IN THE YEAR 1913, BY CITIES

City	Percentage increase, March, 1931, compared with 1913	Percentage decrease, March, 1931, compared with—		City	Percentage increase, March, 1931, compared with 1913	Percentage decrease, March, 1931, compared with—	
		March, 1930	February, 1931			March, 1930	February, 1931
Atlanta	26.3	15.3	1.0	Minneapolis	27.3	16.2	1.1
Baltimore	32.1	13.8	0.3	Mobile		17.5	1.0
Birmingham	26.4	16.5	3.2	Newark	26.2	12.7	0.6
Boston	27.9	16.1	0.7	New Haven	31.4	12.6	1.8
Bridgeport		13.3	0.7	New Orleans	23.8	18.2	2.3
Buffalo	27.5	17.2	1.2	New York	31.5	13.8	1.3
Butte		17.3	1.7	Norfolk		14.4	1.5
Charleston, S. C	32.0	14.1	0.4	Omaha	19.3	17.5	[1] 1.1
Chicago	36.9	16.3	1.4	Peoria		18.2	0.2
Cincinnati	33.5	16.0	1.3	Philadelphia	29.9	14.1	6.2
Cleveland	23.2	15.6	[1] 0.3	Pittsburgh	27.2	14.8	0.1
Columbus		17.8	[1] 0.2	Portland, Me		14.3	0.8
Dallas	25.7	16.7	1.8	Portland, Oreg	11.0	20.4	1.1
Denver	12.1	16.3	[1] 0.2	Providence	25.5	17.1	1.1
Detroit	27.0	17.6	[1] 0.1	Richmond	31.9	15.0	0.4
Fall River	22.2	16.8	[1] 0.1	Rochester		15.6	2.4
Houston		19.1	0.5	St. Louis	29.8	17.0	0.0
Indianapolis	22.3	17.8	[1] 1.5	St. Paul		15.8	[1] 0.7
Jacksonville	20.1	13.8	2.1	Salt Lake City	8.7	16.4	0.0
Kansas City	26.8	15.8	[1] 0.6	San Francisco	26.8	15.4	1.5
Little Rock	19.5	17.8	[1] 0.5	Savannah		16.4	0.6
Los Angeles	14.5	16.9	0.8	Scranton	31.0	16.5	2.2
Louisville	18.5	19.2	1.5	Seattle	20.0	17.6	[1] 0.1
Manchester	23.2	15.9	[1] 0.1	Springfield, Ill		18.3	1.2
Memphis	15.7	19.9	1.7	Washington, D. C	36.0	12.8	[1] 0.1
Milwaukee	26.9	18.2	0.9				

[1] Increase.

Retail Prices of Coal in the United States [1]

THE following table shows the average retail prices of coal on March 15, 1930, and February 15 and March 15, 1931, for the United States and for each of the cities from which retail food prices have been obtained. The prices quoted are for coal delivered to consumers, but do not include charges for storing the coal in cellar or coal bin where an extra handling is necessary.

In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these coals form any considerable portion of the sales for household use.

The prices shown for bituminous coal are averages of prices of the several kinds sold for household use.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON MARCH 15, 1930, AND FEBRUARY 15 AND MARCH 15, 1931

City, and kind of coal	1930	1931	
	Mar. 15	Feb. 15	Mar. 15
United States:			
Pennsylvania anthracite—			
Stove—			
Average price	$15.33	$15.09	$15.09
Index (1913=100)	198.4	195.3	195.4
Chestnut—			
Average price	$15.00	$14.85	$14.85
Index (1913=100)	189.6	187.6	187.7
Bituminous—			
Average price	$9.02	$8.83	$8.71
Index (1923=100)	166.0	162.5	160.3
Atlanta, Ga.:			
Bituminous, prepared sizes	$7.77	$7.52	$7.42
Baltimore, Md.:			
Pennsylvania anthracite—			
Stove	14.25	14.25	14.25
Chestnut	13.75	13.75	13.75
Bituminous, run of mine—			
High volatile	7.89	7.82	7.82
Birmingham, Ala.:			
Bituminous, prepared sizes	7.54	7.36	7.23
Boston, Mass.:			
Pennsylvania anthracite—			
Stove	16.25	16.25	16.25
Chestnut	15.75	15.75	15.75
Bridgeport, Conn.:			
Pennsylvania anthracite—			
Stove	15.50	14.50	14.50
Chestnut	15.50	14.50	14.50
Buffalo, N. Y.:			
Pennsylvania anthracite—			
Stove	13.77	13.79	13.79
Chestnut	13.32	13.29	13.29
Butte, Mont.:			
Bituminous, prepared sizes	11.09	10.47	10.49
Charleston, S. C.:			
Bituminous, prepared sizes	9.67	9.67	9.67
Chicago, Ill.:			
Pennsylvania anthracite—			
Stove	16.85	16.40	16.40
Chestnut	16.40	16.30	16.30
Bituminous—			
Prepared sizes—			
High volatile	8.41	8.09	7.93
Low volatile	12.04	11.95	11.45
Run of mine—			
Low volatile	8.25	8.00	7.75
Cincinnati, Ohio:			
Bituminous—			
Prepared sizes—			
High volatile	$6.30	$6.30	$6.30
Low volatile	8.78	8.53	8.53
Cleveland, Ohio:			
Pennsylvania anthracite—			
Stove	15.19	14.56	14.56
Chestnut	14.75	14.38	14.38
Bituminous—			
Prepared sizes—			
High volatile	7.10	6.66	6.83
Low volatile	9.94	9.91	9.96
Columbus, Ohio:			
Bituminous—			
Prepared sizes—			
High volatile	5.91	5.91	5.68
Low volatile	8.25	8.13	7.88
Dallas, Tex.:			
Arkansas anthracite—Egg	15.50	15.00	15.00
Bituminous, prepared sizes	12.92	12.58	12.58
Denver, Colo.:			
Colorado anthracite—			
Furnace, 1 and 2 mixed	15.06	15.25	15.25
Stove, 3 and 5 mixed	15.06	15.25	15.25
Bituminous, prepared sizes	10.35	9.90	9.55
Detroit, Mich.:			
Pennsylvania anthracite—			
Stove	16.00	14.58	14.58
Chestnut	15.50	14.58	14.58
Bituminous—			
Prepared sizes—			
High volatile	8.09	7.38	6.93
Low volatile	10.12	8.98	8.33
Run of mine—			
Low volatile	7.83	7.50	7.25
Fall River, Mass.:			
Pennsylvania anthracite—			
Stove	16.50	16.50	16.50
Chestnut	16.25	16.25	16.25
Houston, Tex.:			
Bituminous, prepared sizes	13.60	12.00	12.00
Indianapolis, Ind.:			
Bituminous—			
Prepared sizes—			
High volatile	6.01	5.92	5.93
Low volatile	8.75	9.17	9.17
Run of mine—			
Low volatile	7.08	7.05	6.95

[1] Prices of coal were formerly secured semiannually and published in the March and September issues of the Labor Review. Since June, 1920, these prices have been secured and published monthly.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON MARCH 15, 1930, AND FEBRUARY 15 AND MARCH 15, 1931—Continued

City, and kind of coal	1930	1931	
	Mar. 15	Feb. 15	Mar. 15
Jacksonville, Fla.:			
Bituminous, prepared sizes	$14.00	$10.00	$10.00
Kansas City, Mo.:			
Arkansas anthracite—			
Furnace	12.55	12.44	12.44
Stove No. 4	13.67	13.50	13.50
Bituminous, prepared sizes	7.15	6.77	6.77
Little Rock, Ark.:			
Arkansas anthracite—Egg	13.50	13.50	13.50
Bituminous, prepared sizes	10.10	10.05	9.90
Los Angeles, Calif.:			
Bituminous, prepared sizes	16.50	16.50	16.50
Louisville, Ky.:			
Bituminous—			
Prepared sizes—			
High volatile	7.03	6.28	6.34
Low volatile	9.50	8.75	8.75
Manchester, N. H.:			
Pennsylvania anthracite—			
Stove	17.00	16.83	16.83
Chestnut	17.00	16.83	16.83
Memphis, Tenn.:			
Bituminous, prepared sizes	7.80	7.52	7.52
Milwaukee, Wis.:			
Pennsylvania anthracite—			
Stove	16.30	15.75	15.75
Chestnut	15.85	15.50	15.50
Bituminous—			
Prepared sizes—			
High volatile	7.68	7.74	7.70
Low volatile	10.99	10.60	10.60
Minneapolis, Minn.:			
Pennsylvania anthracite—			
Stove	18.30	16.90	16.90
Chestnut	17.85	16.90	16.90
Bituminous—			
Prepared sizes—			
High volatile	10.56	9.69	9.65
Low volatile	12.39	12.91	12.63
Mobile, Ala.:			
Bituminous, prepared sizes	9.53	9.59	9.38
Newark, N. J.:			
Pennsylvania anthracite—			
Stove	13.96	13.85	13.90
Chestnut	13.46	13.35	13.40
New Haven, Conn.:			
Pennsylvania anthracite—			
Stove	15.17	14.90	14.90
Chestnut	15.17	14.90	14.90
New Orleans, La.:			
Bituminous, prepared sizes	10.96	10.93	10.93
New York, N. Y.:			
Pennsylvania anthracite—			
Stove	14.58	14.17	14.17
Chestnut	14.08	13.67	13.67
Norfolk, Va.:			
Pennsylvania anthracite—			
Stove	14.00	15.00	15.00
Chestnut	14.00	15.00	15.00
Bituminous—			
Prepared sizes—			
High volatile	7.25	7.38	7.38
Low volatile	8.50	10.00	9.00
Run of mine—			
Low volatile	6.50	7.00	7.00
Omaha, Nebr.:			
Bituminous, prepared sizes	9.67	9.71	9.66
Peoria, Ill.:			
Bituminous, prepared sizes	6.78	6.33	6.39
Philadelphia, Pa.:			
Pennsylvania anthracite—			
Stove	[1] 15.00	14.00	14.00
Chestnut	[1] 14.50	13.50	13.50
Pittsburgh, Pa.:			
Pennsylvania anthracite—			
Chestnut	$15.00	$14.50	$14.50
Bituminous, prepared sizes	5.36	4.75	4.73
Portland, Me.:			
Pennsylvania anthracite—			
Stove	16.80	16.80	16.80
Chestnut	16.80	16.80	16.80
Portland, Oreg.:			
Bituminous, prepared sizes	13.32	13.26	13.15
Providence, R. I.:			
Pennsylvania anthracite—			
Stove	[2] 16.00	[2] 16.00	[2] 16.00
Chestnut	[2] 16.00	[2] 16.00	[2] 16.00
Richmond, Va.:			
Pennsylvania anthracite—			
Stove	15.00	15.00	15.00
Chestnut	15.00	15.00	15.00
Bituminous—			
Prepared sizes—			
High volatile	8.38	8.75	8.75
Low volatile	9.11	9.83	9.88
Run of mine—			
Low volatile	7.25	7.50	7.50
Rochester, N. Y.:			
Pennsylvania anthracite—			
Stove	14.75	14.75	14.75
Chestnut	14.25	14.25	14.25
St. Louis, Mo.:			
Pennsylvania anthracite—			
Stove	16.70	16.20	16.20
Chestnut	16.45	15.95	15.95
Bituminous, prepared sizes	6.75	6.37	5.87
St. Paul, Minn.:			
Pennsylvania anthracite—			
Stove	18.28	16.90	16.90
Chestnut	17.85	16.90	16.90
Bituminous—			
Prepared sizes—			
High volatile	10.27	9.58	9.58
Low volatile	12.63	12.86	12.66
Salt Lake City, Utah:			
Bituminous, prepared sizes	8.38	8.16	7.99
San Francisco, Calif.:			
New Mexico anthracite—			
Cerillos egg	26.00	26.00	26.00
Colorado anthracite—			
Egg	25.50	25.50	25.50
Bituminous, prepared sizes	16.88	16.88	17.00
Savannah, Ga.:			
Bituminous, prepared sizes	[3] 10.21	[3] 10.53	[3] 10.45
Scranton, Pa.:			
Pennsylvania anthracite—			
Stove	10.28	10.18	10.18
Chestnut	9.92	9.88	9.88
Seattle, Wash.:			
Bituminous, prepared sizes	10.79	10.68	10.79
Springfield, Ill.:			
Bituminous, prepared sizes	4.34	4.31	4.34
Washington, D. C.:			
Pennsylvania anthracite—			
Stove	[1] 15.73	[1] 15.73	[1] 15.73
Chestnut	[1] 15.23	[1] 15.23	[1] 15.23
Bituminous—			
Prepared sizes—			
High volatile	[1] 8.63	[1] 8.61	[1] 8.61
Low volatile	[1] 11.43	[1] 11.43	[1] 11.43
Run of mine—			
Mixed	[1] 7.75	7.81	[1] 7.81

[1] Per ton of 2,240 pounds.

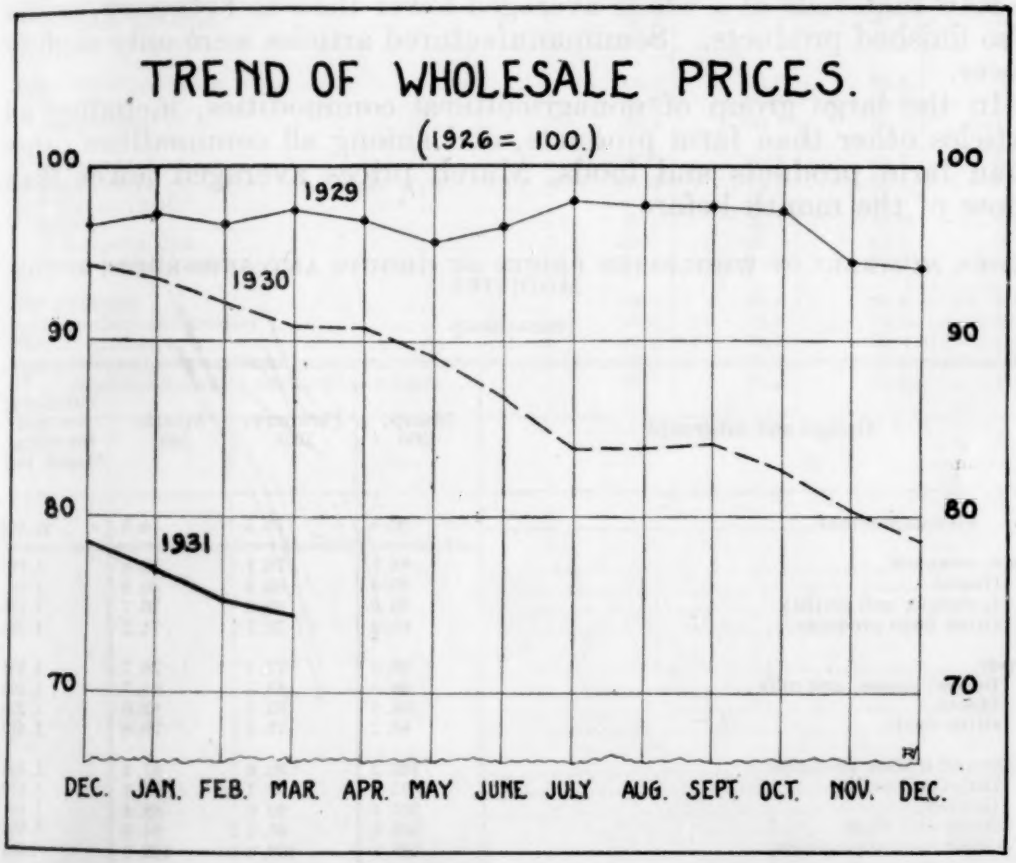
[2] The average price of coal delivered in bin is 50 cents higher than here shown. Practically all coal is delivered in bin.

[3] All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above price.

Index Numbers of Wholesale Prices in March, 1931

THE index number of wholesale prices computed by the Bureau of Labor Statistics of the United States Department of Labor shows a further recession in March. This index number, which includes 550 commodities or price quotations weighted according to the importance of each article and based on prices in 1926 as 100.0, declined from 75.5 in February to 74.5 in March, a decrease of a little more than 1¼ per cent. This compares with a decrease of 2 per cent between January and February. The purchasing power of the 1926 dollar in March was $1.342.

Farm products as a group reacted from recent price declines, increasing three-fourths of 1 per cent above the February level. Prices of wheat, hogs, poultry, eggs, apples, oranges, onions, potatoes, and foreign wools averaged higher than in the month before. Corn, oats, rye, and hay, on the other hand, were cheaper than in February.



Foods were one-half of 1 per cent lower than in the preceding month, with declines in most fresh and cured meats, fish, flour, canned fruits and vegetables, cheese, coffee, and sugar. Among foods increasing in price were butter, fresh pork, dressed poultry, lard, and corn meal.

Hides and skins showed an appreciable price increase, with leather and boots and shoes declining slightly and other leather products showing no change.

In the group of textile products there were small decreases among cotton goods and larger decreases among silk and rayon, woolen and worsted goods, and other textiles.

Anthracite and bituminous coal and beehive coke showed small price declines, while by-product coke was stationary. Petroleum products showed a pronounced drop in price, due to radical decreases in crude petroleum, fuel oil, and gasoline. Among metals and metal products there was a slight decline in iron and steel, while nonferrous metals advanced. Other metal products were unchanged in price.

In the group of building materials, lumber and paint materials advanced, while brick was stationary and cement declined. The group as a whole showed a negligible increase.

Chemicals and drugs, including fertilizer materials and mixed fertilizers, were somewhat cheaper than in February.

No change in the price level was shown for furniture and furnishings in the group of house-furnishing goods.

In the group of miscellaneous commodities, cattle feed moved sharply upward, while paper and pulp and crude rubber weakened. No change in the price level was reported for automobile tires.

Raw materials as a whole averaged lower than in February, as did also finished products. Semimanufactured articles were only slightly lower.

In the large group of nonagricultural commodities, including all articles other than farm products, and among all commodities other than farm products and foods, March prices averaged lower than those of the month before.

INDEX NUMBERS OF WHOLESALE PRICES BY GROUPS AND SUBGROUPS OF COMMODITIES

[1926=100.0]

Groups and subgroups	March, 1930	February, 1931	March, 1931	Purchasing power of the dollar March, 1931
All commodities	90.8	75.5	74.5	$1.342
Farm products	94.7	70.1	70.6	1.416
Grains	83.5	60.4	59.3	1.686
Livestock and poultry	99.6	69.6	70.7	1.414
Other farm products	95.2	73.7	74.2	1.348
Foods	93.9	77.1	76.7	1.304
Butter, cheese, and milk	98.5	83.3	83.7	1.195
Meats	104.2	83.6	82.0	1.220
Other foods	86.2	70.8	70.8	1.412
Hides and leather products	103.2	86.6	87.4	1.144
Hides and skins	95.8	57.7	62.1	1.610
Leather	107.4	89.0	88.4	1.131
Boots and shoes	103.8	95.0	94.9	1.054
Other leather products	105.8	102.0	102.0	.980
Textile products	86.5	70.4	69.2	1.445
Cotton goods	91.9	76.9	76.5	1.307
Silk and rayon	73.7	48.8	47.0	2.128
Woolen and worsted goods	91.0	81.7	79.7	1.255
Other textile products	70.6	59.0	57.4	1.742
Fuel and lighting materials	77.4	69.6	64.5	1.550
Anthracite coal	91.2	88.9	88.2	1.134
Bituminous coal	89.9	87.8	85.8	1.166
Coke	84.2	83.8	83.7	1.195
Gas	94.1	95.8	(1)	
Petroleum products	63.7	50.2	41.8	2.392

[1] Data not yet available.

INDEX NUMBERS OF WHOLESALE PRICES BY GROUPS AND SUBGROUPS OF COMMODITIES—Continued

Groups and subgroups	March, 1930	February, 1931	March, 1931	Purchasing power of the dollar March, 1931
Metals and metal products	100.6	88.9	89.0	$1.124
Iron and steel	94.9	88.4	88.1	1.135
Nonferrous metals	98.6	66.1	67.1	1.490
Agricultural implements	95.0	94.7	94.7	1.056
Automobiles	106.8	98.0	98.0	1.020
Other metal products	98.4	95.0	95.0	1.053
Building materials	95.4	81.8	81.9	1.221
Lumber	91.6	73.2	74.2	1.348
Brick	88.3	81.5	81.5	1.227
Cement	92.7	87.9	84.1	1.189
Structural steel	91.9	84.3	84.3	1.186
Paint materials	92.1	70.9	73.0	1.370
Other building materials	106.4	95.6	95.4	1.048
Chemicals and drugs	91.2	82.2	81.9	1.221
Chemicals	96.8	85.0	84.8	1.179
Drugs and pharmaceuticals	68.3	65.0	64.6	1.548
Fertilizer materials	88.2	81.1	80.8	1.238
Mixed fertilizers	94.8	89.1	88.3	1.133
House-furnishing goods	96.5	90.8	90.8	1.101
Furniture	96.6	95.5	95.5	1.047
Furnishings	96.3	86.7	86.7	1.153
Miscellaneous	78.2	63.9	64.7	1.546
Cattle feed	103.8	71.6	82.1	1.218
Paper and pulp	87.0	83.1	82.3	1.215
Rubber	31.6	16.1	16.0	6.250
Automobile tires	55.2	45.7	45.7	2.188
Other miscellaneous	108.6	85.1	86.3	1.159
Raw materials	89.3	70.6	69.4	1.441
Semimanufactured articles	90.6	72.3	72.2	1.385
Finished products	92.0	79.3	78.4	1.276
Nonagricultural commodities	89.8	77.1	75.7	1.321
All commodities less farm products and foods	88.7	77.1	75.6	1.323

COST OF LIVING

Argentine Measures to Reduce Cost of Living

A GOVERNMENT organization (*Junta de Abastecimientos*) was formed recently in Argentina to investigate the high prices of foodstuffs and rents in Buenos Aires and to devise means of bringing about a reduction in the cost of living in Buenos Aires and in the Provinces, according to a report from Vice Consul Ralph Miller, at Buenos Aires, dated March 5, 1931.

This organization did not use coercive measures but confined its activities, first of all, to appeals to the dealers and landowners to make a voluntary reduction, but since few results were obtained, more direct methods were resorted to.

The municipality of Buenos Aires bought flour, bread, meat, milk, and vegetables direct from the producers and offered them to the public at the city markets and street fairs at greatly reduced prices. This measure has brought relief to the laboring classes and has induced dealers to reduce their prices accordingly.

The report states that excessive building operations in Buenos Aires during the last two years have oversupplied the market and a reduction of over 20 per cent in the rent of small apartments has taken place within the last six months. Suburban rents are still excessive, however. It is generally believed that unless there is a reduction in property taxes and in import duties on building materials, the efforts of the authorities will not be successful in bringing about a reduction in rents.

Japanese Family Budget Investigation, 1926–27

THE first family-budget inquiry on an extensive scale in Japan and the only official investigation of this kind ever made in that country was carried on by the Bureau of Statistics of the Imperial Cabinet in 1926–27. A summary of this study, by the chief statistician of the Bureau of Statistics, recently published in English, is the basis of an article in the March, 1931, issue of the International Labor Review, from which the following data are taken.

Scope and method of inquiry.—The investigation covered various localities, including 11 of the largest cities. Among the households budgeted were those of salaried workers (officials, clerks, teachers, etc.), wage earners (factory, mine, and communication workers, and day laborers), and farmers. The period for which the budget records were kept was from September 1, 1926, to August 31, 1927.

In selecting the families to keep records the requirements to be met were as follows:

(*a*) The total income of the household per month must not exceed 200 yen [$96.40] approximately. In the case of farm households, the area cultivated must not exceed 2 cho approximately (cho = 2.45 acres).

(*b*) More than half the family income must be derived from the earnings of the husband.

(c) The household must not conduct any business on its own account (or in the case of farm households, no independent business other than agriculture).
(d) The household should contain 2 to 7 persons.
(e) Preferably the household should have no servants, boarders, or lodgers, or any other inmates besides its own members.[1]

Of the 7,856 household books distributed, 6,505 were continued for the year and 5,455 family budgets were tabulated.

Table 1 shows the average monthly income and average expenditures of salaried workers' and of wage earners' households. It will be noted that the total average monthly income for salaried workers was 137.17 yen ($66.12) as compared with 102.07 yen ($49.19) for wage earners. The salaried workers' households had a surplus of 12.83 yen ($6.19) in income over expenditures and the wage earners' households a surplus of 10.69 yen ($5.15).

The study covered 1,575 households of salaried workers and 3,210 households of wage earners. The former had an average of 4.17 persons each (3.19 consumption units) and the latter 4.21 persons (3.18 consumption units).

TABLE 1.—AVERAGE MONTHLY INCOME AND EXPENDITURES OF SALARIED WORKERS' AND WAGE EARNERS' HOUSEHOLDS FOR YEAR ENDING AUGUST 31, 1927

[Conversions into United States currency on basis of average exchange rate of yen for year covered=48.2 cents]

Item	Salaried workers		Wage earners	
	Yen	United States currency	Yen	United States currency
Income				
Earnings:				
Husband—				
Principal income	108.03	$52.07	84.67	$40.81
Subsidiary income	1.62	.78	.44	.21
Wife	3.76	1.81	3.55	1.71
Other members of household	2.75	1.33	4.26	2.05
Total	116.16	55.99	92.92	44.78
Other income:				
From lodgers	.48	.23	.64	.31
From property	5.22	2.52	1.92	.93
Presents	11.81	5.69	5.92	2.85
Other sources	3.50	1.69	.67	.32
Total	21.01	10.13	9.15	4.41
Grand total	137.17	66.12	102.07	49.19
Expenditures				
Food and drink	40.61	19.57	36.33	17.51
Housing (including repairs, furniture, etc.)	22.84	11.01	14.42	6.95
Fuel and light	5.66	2.73	4.17	2.01
Clothing	17.18	8.28	11.87	5.72
All other	38.05	18.34	24.59	11.85
Total	124.34	59.93	91.38	44.04
Surplus	12.83	6.19	10.69	5.15

[1] There could, however, be tenants or subtenants occupying part of the dwelling, provided they would not render the task of keeping the budget records more complicated or laborious.

The composition of the farmers' households is shown in the table following:

TABLE 2.—COMPOSITION OF FARMERS' HOUSEHOLDS

Item	Class of farmer [1]			Total
	Independent	Semi-independent	Tenant	
Number of households	132	330	208	670
Persons per household	5.93	5.93	5.61	5.83
Consumption units per household	4.76	4.76	4.45	4.66

[1] An "independent farmer" was defined as one who owned 90 per cent or more and leased 10 per cent or less of the total land worked; a tenant farmer as one who leased 90 per cent or more and owned 10 per cent or less, of the land worked; the remainder of the farmers were classed as "semi-independent farmers."

Table 3 gives the average monthly income and expenditures of various classes of farmers' households, the income for all farmers being only 96.16 yen ($46.35).

The income of farmers, it is pointed out, is more difficult to ascertain correctly and their budgets are more difficult to balance. The results of the study of such budgets, however, though they may not be strictly comparable with those of the investigation of salaried workers' and wage earners' budgets, do seem to indicate that the farmers' standard of living is lower than in the corresponding wage-earning classes.

TABLE 3.—AVERAGE MONTHLY INCOME AND EXPENDITURE OF FARMERS' HOUSEHOLDS FOR YEAR ENDING AUGUST 31, 1927

[Conversions into United States currency on basis of average exchange rate of yen for year covered = 48.2 cents]

Item	Class of farmers [1]							
	Independent		Semi-independent		Tenant		Total	
	Yen	United States currency	Yen	United States currency	Yen	United States currency	Yen	United States currency
Income								
Net income from agriculture	74.91	$36.10	65.29	$31.47	47.21	$22.76	61.57	$29.68
Income from other sources:								
Earnings—								
Husband	3.66	1.76	5.13	2.47	6.62	3.19	5.30	2.55
Wife	.42	.20	.86	.41	1.04	.50	.83	.40
Other members of household	2.73	1.32	5.07	2.44	6.00	2.89	4.90	2.36
Other income—								
From property	20.29	9.78	12.75	6.15	8.77	4.23	13.00	6.27
Presents	7.19	3.47	7.47	3.60	6.71	3.23	7.18	3.46
Other sources	3.33	1.61	3.76	1.81	2.81	1.35	3.38	1.63
Total	37.62	18.14	35.04	16.88	31.95	15.40	34.59	16.67
Grand total	112.53	54.24	100.33	48.35	79.16	38.16	96.16	46.35
Expenditure								
Food and drink	45.07	21.73	44.87	21.62	41.40	19.95	44.01	21.21
Housing (including repairs, furniture, etc.)	18.63	8.98	14.98	7.22	11.54	5.56	14.64	7.06
Fuel and light	6.10	2.94	6.16	2.97	5.34	2.57	5.89	2.84
Clothing	9.32	4.49	8.17	3.94	5.59	2.69	7.59	3.66
All other	30.54	14.72	26.45	12.75	17.39	8.38	24.26	11.69
Total	109.66	52.86	100.63	48.50	81.26	39.17	96.39	46.46
Income compared with expenditure								
Surplus	2.87	1.38						
Deficit			.30	.15	2.10	1.01	.23	.11

[1] An "independent farmer" was defined as one who owned 90 per cent or more and leased 10 per cent or less of the total land worked; a tenant farmer as one who leased 90 per cent or more, and owned 10 per cent or less, of the land worked; the remaining farmers were classed as "semi-independent farmers."

Table 4 shows that proportionately more is spent for food and drink in the lowest income groups in each class of households, the percentage for this expenditure in such income groups being for salaried workers', wage earners', and all farmers' households, respectively, 43.31, 50.23, and 50.95. With the increase in income in all classes of households there is, of course, a rise in the percentage of expenditure for miscellaneous items.

TABLE 4.—PERCENTAGE DISTRIBUTION OF EXPENDITURE OF SALARIED WORKERS' WAGE EARNERS', AND FARMERS' HOUSEHOLDS

[Conversions into United States currency on basis of average exchange rate of yen for year covered=48.2 cents]

Class of household and average monthly income	Percentage of income expended for—					
	Food and drink	Housing	Fuel and light	Clothing	All other	Total
Salaried workers:						
Under 60 yen (under $28.92)	43.31	17.39	6.36	12.55	20.39	100.00
60 and under 80 yen ($28.92 and under $38.56)	37.95	17.91	5.64	13.70	24.80	100.00
80 and under 100 yen ($38.56 and under $48.20)	36.67	18.23	5.03	13.61	26.46	100.00
100 and under 120 yen ($48.20 and under $57.84)	35.11	18.96	4.96	13.61	27.36	100.00
120 and under 140 yen ($57.84 and under $67.48)	33.45	18.72	4.64	13.95	29.24	100.00
140 and under 160 yen ($67.48 and under $77.12)	32.47	18.53	4.47	14.02	30.51	100.00
160 and under 180 yen ($77.12 and under $86.76)	31.43	17.29	4.40	13.97	32.91	100.00
180 and under 200 yen ($86.76 and under $96.40)	30.06	18.67	4.18	13.68	33.41	100.00
200 yen and over ($96.40 and over)	28.26	18.15	3.90	13.83	35.86	100.00
Total	32.66	18.37	4.55	13.82	30.60	100.00
Wage earners:						
Under 60 yen (under $28.92)	50.23	14.13	5.75	9.75	20.14	100.00
60 and under 80 yen ($28.92 and under $38.56)	44.94	14.84	4.94	11.81	23.47	100.00
80 and under 100 yen ($38.56 and under $48.20)	41.99	15.46	4.75	12.51	25.29	100.00
100 and under 120 yen ($48.20 and under $57.84)	38.14	16.51	4.54	13.07	27.74	100.00
120 and under 140 yen ($57.84 and under $67.48)	36.96	16.43	4.33	13.70	28.58	100.00
140 and under 160 yen ($67.48 and under $77.12)	36.36	15.66	4.09	14.17	29.72	100.00
160 and under 180 yen ($77.12 and under $86.76)	34.18	16.48	3.96	14.98	30.40	100.00
180 and under 200 yen ($86.76 and under $96.40)	31.84	16.30	3.81	15.75	32.30	100.00
200 yen and over ($96.40 and over)	32.35	15.61	3.74	13.74	34.56	100.00
Total	39.76	15.78	4.56	12.99	26.91	100.00
Farmers:						
79.16 yen ($38.16) [1]	50.95	14.20	6.57	6.88	21.40	100.00
100.33 yen ($48.36) [2]	44.59	14.89	6.12	8.12	26.28	100.00
112.53 yen ($54.24) [3]	41.92	16.99	5.56	8.50	27.03	100.00
Total	45.66	15.19	6.11	7.87	25.17	100.00

[1] Tenant. [2] Semi-independent. [3] Independent.

The large percentage of expenditure for rice, barley, and other cereals in all classes of households is brought out in Table 5, as is also the fact that the percentage of expenditure for "luxuries" (alcoholic drinks, tobacco, cakes and fruit, and nonalcoholic drinks) in wage earners' households is higher than in salaried workers' households.

TABLE 5.—PERCENTAGE DISTRIBUTION OF EXPENDITURE FOR FOOD OF SALARIED WORKERS', WAGE EARNERS', AND FARMERS' HOUSEHOLDS

Item	Per cent of total expenditure					
	Salaried workers	Wage earners	Farmers			
			All	Independent	Semi-independent	Tenant
Rice, barley, and other cereals	11.09	16.25	27.39	24.65	26.60	31.27
Fresh fish and shellfish	3.02	3.41	2.01	1.85	1.96	2.23
Meat	1.12	1.02	.27	.35	.25	.25
Eggs	.76	.55	.22	.29	.23	.13
Milk	.28	.22	.10	.10	.13	.04
Beans and vegetables	2.35	2.84	3.71	3.34	3.68	4.07
Dried food	.43	.43	.34	.32	.33	.37
Tofu (bean curd), Tsukudani, and similar prepared food and pickles	1.73	2.18	1.91	1.72	1.92	2.03
Sugar, salt, soy, etc	2.78	3.37	4.76	4.37	4.65	5.33
Bought meals for home consumption	.87	.79	.27	.30	.26	.25
Meals outside the home	2.04	1.58	.19	.25	.18	.17
Total	26.47	32.64	41.17	37.54	40.19	46.18
"Luxuries":						
Alcoholic drinks	1.59	2.80	1.97	1.91	1.88	2.20
Tobacco	1.17	1.39	.59	.56	.56	.65
Cakes and fruit	2.91	2.45	1.59	1.59	1.61	1.56
Nonalcoholic drinks	.52	.48	.34	.32	.35	.36
Total	6.19	7.12	4.49	4.38	4.40	4.77
Grand total	32.66	39.76	45.66	41.92	44.59	50.95

The percentage of expenditures on miscellaneous items is highest in the salaried group, as indicated in Table 6, and in all classes of households proportionately more was expended under the heading "Companionship (presents, parties, etc.)" than for any other class of miscellaneous items.

TABLE 6.—PERCENTAGE DISTRIBUTION OF MISCELLANEOUS EXPENDITURES OF SALARIED WORKERS', WAGE EARNERS', AND FARMERS' HOUSEHOLDS

Item	Per cent of total expenditure					
	Salaried workers	Wage earners	Farmers			
			All	Independent	Semi-independent	Tenant
Sanitation	6.18	6.39	2.81	2.96	2.93	2.44
Rearing of children	1.30	1.67	.38	.39	.39	.38
Education	1.90	1.09	1.05	1.57	.98	.75
Daily journeys	1.76	1.24	1.19	1.25	1.24	1.07
Correspondence and transportation	.42	.23	.17	.23	.16	.15
Stationery	.20	.13	.16	.16	.16	.15
Taxes, rates, and other duties	1.13	.56	1.36	2.04	1.32	.84
Companionship (presents, parties, etc.)	8.28	7.07	7.86	8.18	8.13	7.06
Culture and recreation	4.85	3.57	2.24	2.76	2.30	1.66
Travel	1.15	.99	.60	.68	.65	.45
Hired labor	.27	.13	.17	.19	.19	.09
Other expenditures	2.61	3.04	6.28	5.75	7.01	5.28
Not defined	.55	.80	.90	.87	.82	1.08
Total	30.60	26.91	25.17	27.03	26.28	21.40

IMMIGRATION AND EMIGRATION

Statistics of Immigration for February, 1931

By J. J. Kunna, Chief Statistician United States Bureau of Immigration

DURING February, 12,212 aliens were admitted to the United States; the immigrant class, newcomers for permanent residence in this country, numbered 3,147, the remaining 9,065 being tourists or other temporary visitors. In the same month 20,890 aliens left the United States, 16,170 of whom were of the visiting class or non-emigrants and 4,720 were emigrants leaving with the intention of again making their home abroad. American citizens returning to and departing from the United States in February totaled 27,508 and 33,172, respectively. Compared with the previous month, there was an increase in both the inward and outward passenger movement, 39,720 persons having entered the United States and 54,062 left for foreign countries in February, as against 32,659 arrived and 46,451 departed in January, 1931.

Two-thirds, or 8,063, of the 12,212 aliens admitted in February were born in Europe, while 2,956 gave countries in the Western Hemisphere as their place of birth, principally Canada, Mexico, and Cuba; 1,015 were born in Asia; 132 in Australia, New Zealand, and the Pacific islands; and 46 in Africa. Of the total admitted, 3,936 came in under the immigration act of 1924 as residents of the United States returning from a temporary sojourn abroad, 2,749 came as visitors to this country for business or pleasure, and 2,175 were passing through the country on their way elsewhere. Aliens entering as quota immigrants numbered 1,471 and as natives of nonquota countries 669. There were 777 aliens admitted as husbands, wives, and unmarried children of American citizens, and 435 as Government officials, students, ministers, professors, and other miscellaneous classes. All classes of admission under the act show a reduction since a year ago, the most drastic decline being in the case of quota immigrants. The number admitted of this class dropped from 9,207 in February, 1930, to 1,471 in February, 1931, a decrease of 7,736, or 84 per cent. Aliens admitted as natives of Canada, Mexico, and other nonquota countries also show a marked decrease, or from 2,546 to 669, a reduction of 73.7 per cent.

The principal nationalities among the 3,147 immigrant aliens for February were: Italian with 609, English with 360, German with 337, Hebrew with 224, Scandinavian with 165, French with 153, Scotch with 136, and Irish with 131. These eight nationalities supplied two-thirds of the total for the month. A year ago the Germans led the list with 2,299, followed by the Irish with 1,780, English with 1,712, Scotch with 1,600, Italian with 1,244, Hebrew with 827, Mexican with 772, and French with 512—forming altogether about 80 per cent of the 13,585 immigrants entering during February, 1930.

The women outnumber the men among the present-day immigrants, 1,929 of the newcomers during February being females and 1,218

males; 1,466 were single at the time of arrival, 1,489 were married, and 192 were widowed or divorced. As to the age given at time of arrival, 609 were children under 16 years and 532 were from 16 to 21 years, while 784 ranged in age from 22 to 29, 486 from 30 to 37 years, 232 from 38 to 44 years, and 504 from 45 to 60 years and over. Comparatively few unskilled workers are now admitted, only 133 of the February immigrants being laborers, as contrasted with 2,063, or 66 per cent of the total, who were recorded as having no occupation, being mainly women and children.

INWARD AND OUTWARD PASSENGER MOVEMENT FROM JULY 1, 1930, TO FEBRUARY 28, 1931

Period	Inward					Aliens debarred from entering [1]	Outward					Aliens deported after landing [2]
	Aliens admitted			United States citizens arrived	Total		Aliens departed			United States citizens departed	Total	
	Immigrant	Non-immigrant	Total				Emigrant	Non-emigrant	Total			
1930												
July	13,323	16,466	29,789	38,822	68,611	881	4,818	22,588	27,406	55,366	82,772	1,440
August	14,816	19,724	34,540	69,957	104,497	837	5,245	29,166	34,411	88,372	122,783	1,208
September	17,792	29,359	47,151	80,900	128,051	929	5,100	24,604	29,704	56,526	86,230	1,552
October	13,942	23,304	37,246	40,702	77,948	854	5,352	22,938	28,290	32,988	61,278	1,526
November	9,209	13,032	22,241	22,381	44,622	734	4,951	19,285	24,236	24,420	48,656	1,405
December	6,439	9,939	16,378	28,535	44,913	806	5,450	17,603	23,053	21,140	44,193	1,377
1931												
January	4,091	8,724	12,815	19,844	32,659	693	4,397	17,169	21,566	24,885	46,451	1,517
February	3,147	9,065	12,212	27,508	39,720	689	4,720	16,170	20,890	33,172	54,062	1,210
Total	82,759	129,613	212,372	328,649	541,021	6,423	40,033	169,523	209,556	336,869	546,425	11,235

[1] These aliens are not included among arrivals, as they were not permitted to enter the United States.
[2] These aliens are included among aliens departed, they having entered the United States, legally or illegally, and later being deported.

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United States—Suggested Plans[1]

ABBOTT, CHARLES F.
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See also a discussion, by Granville P. Rogers, in same journal, May 8, 1930, pp. 64, 65.

[1] See also discussions at annual meeting of Chamber of Commerce of the United States, April 28–May 1, 1931, in The Week's Work, May 2, 1931, and daily press.

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—— A Federal economic council. New Republic, April 29, 1931, v. 66, pp. 294–297.

Suggestion is for a council of 100 delegates, representative of the different economic interests of the country, operating under an act of Congress and subject to the authority of Congress, the work to be done through standing committees and a permanent staff with one plenary session of the council annually. The main purpose would be to present what may be called an annual audit of the United States giving a connected view of economic developments. In addition the council might prepare specific recommendations on special economic problems of urgent national importance and be of assistance to the various Government departments and to Members of Congress seeking information on economic matters.

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SOULE, GEORGE HENRY.

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After discussing the differences in functions of the two general types of agencies suggested for national economic planning—the economic general staff and the national industrial council—the author answers three major objections to the creation of central planning agencies.

—— What planning might do. Goals and methods for an economic brain. New Republic, March 11, 1931, v. 66, pp. 88–91.

Suggests three boards, committees, or commissions, all subordinate to the principal economic board: (1) For planning new investments, private and public; (2) For the job of organizing the labor market. Would supervise a national system of labor exchanges, administer unemployment insurance. Would foresee transit of labor out of old into new industries or localities and provide such training or adjusting measures as were necessary. Would keep close tab on wage statistics; (3) The third board would have oversight of planning on the basis of economic geography.

UNITED STATES. *Congress. Senate.*

S. 6215, a bill to establish a National Economic Council. 5 pp.

Bill introduced by Mr. LaFollette, February 17 (calendar day, February 20), 1931, provides for a national economic council of 15 members to be appointed by the President with the consent of the Senate, to be selected from lists submitted by groups of associations and organizations representing the industrial, financial, agricultural, transportation, and labor interests of the United States. The council would keep advised as to economic conditions, consider all problems affecting the economic situation, formulate proposals looking toward the solution of these problems and make reports to the President and Congress urging needed legislation.

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Czechoslovakia

CZECHOSLOVAK REPUBLIC. *Ministerstvo průmyslu, obchodu a zivnosti.* Věstnik . . . 1, 1920–

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BRAMHALL, EDITH C.
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CREATION OF A NATIONAL ECONOMIC COUNCIL IN FRANCE.
Monthly Labor Review, March, 1925, v. 20, pp. 488–490.

A brief review of the efforts to secure the establishment of a national economic council with a summary of the provisions of the decree of January 16, 1925.

FRANCE. *Laws, statutes, etc.*
Decree: National Economic Council . . . Decree constituting a National Economic Council. Dated January 16, 1925. [London, 1925.] 4 pp. (International Labor Office, Geneva. Legislative series, 1925, Fr. 3.)

Translation. Official text of the decree published in the Journal Officiel, January 17, 1925.

The function of the council is to study problems concerning the economic life of the country, propose solutions and bring its proposals before the public authorities. Council is attached to the Office of the Prime Minister and its expenses provided for in the budget of the Ministry of Labor.

It is composed of 47 members (with 2 alternates each) representing the different economic and social groups of the country; term of office two years. Council meets four times a year and extra sessions may be called by the Prime Minister who is president of the council. Provision is made for a permanent committee of 10 members to take care of current matters between sessions.

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Germany[1]

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GERMANY, *Laws, statutes, etc.*

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Translation of governmental order of May 4, 1920, creating a provisional economic council under authority of article 165 of the Constitution of 1919. Also printed in French. Official German text in Reichsgesetzblatt, 1920, No. 99, S. 858.

Council consists of 326 persons from agriculture and forestry, horticulture and fishing, industry, commerce, banking and insurance, handicrafts, transportation and public works, consumers, civil service and liberal professions, according to the numerical and economic importance of the various groups, together with 24 experts appointed by the Reichsrat and the Government.

Its functions are to express its opinions on economic and socio-political bills of fundamental importance which must be submitted to it by the National Government, to originate proposals of an economic or socio-political nature, to form a permanent committee to advise the various Government departments on current economic and social problems and to cooperate in the formation of works councils, representative employers' federations and district economic councils.

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HEADLAM-MORLEY, AGNES.
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NATIONAL ECONOMIC COUNCILS.
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SIEMENS, KARL VON.
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Current History, September, 1924, v. 20, pp. 994–998.

This author, who is chairman of the board of directors of The Siemens-Schukert Works, Berlin, and a member of the Reichstag, views the economic council as an attempt to make government more representative by enabling labor, capital, and the consumer to exercise their influence on the government and on legislation openly and legitimately. While its functions are only advisory in character the influence of the economic council is very great.

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Brief survey of efforts to secure labor representation in Germany.

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Revue des Études Coopératives, July–September, 1924, v. 3, pp. 386–405; October–December, 1924, v. 4, pp. 32–51.

The first article traces the origin of the idea of a national economic parliament and summarizes the discussions which centered around the adoption of article 165 of the Weimar Constitution. The second describes the organization and work of the provisional economic council and the difficulties encountered in working out the permanent plan. Concludes with a plea for planned international economy.

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Economic Advisory Council. Copy of Treasury minute, dated January 27, 1930, appointing an Economic Advisory Council . . . London, 1930. 3 pp. ([Parliament. Papers by command.] Cmd. 3478.)

A standing body reporting to the Cabinet (1) "to advise His Majesty's Government in economic matters"; (2) "to make continuous study of developments in trade and industry and in the use of national and imperial resources, of the effect of legislation and fiscal policy at home and abroad, and of all aspects of national, imperial, and international economy with a bearing on the prosperity of the country." Council of which the Prime Minister is chairman is made up of certain cabinet officers and of other persons chosen by the Prime minister by reason of their special knowledge and experience in industry and economics. Takes over the functions of Committee on Civil Research.

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Atti 1– session, giugno 1924–

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MEXICO. *Laws, statutes, etc.*
[Law creating a National Economic Council.]
United States Daily, September 28, 1928, p. 2.

Translation of the full text of the Mexican law creating a National Economic Council which is to study "the economic-social affairs of the Nation and shall be a permanent autonomous body of compulsory consultation and free initiative."

NEW SPANISH LABOUR ORGANISATION: The Superior Council of Labour, Industry, and Commerce.
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A brief summary of the provisions of the royal decree (text in Gaceta de Madrid, May 6, 1924) setting up a superior council of labor, industry and commerce attached to the Ministry of Labor to act as the supreme advisory government organization for all questions for which the ministry is responsible. See also same journal, August 11, 1924, v. 11, p. 15 for personnel.

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Boletin de la Revista General de Legislación y Jurisprudencia (Colegio de Abogados de Madrid) 1924, v. 188, pp. 270–299.

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INTERNATIONAL ECONOMIC CONFERENCE, *Geneva*, 1927.
Report and proceedings of the world economic conference held at Geneva, May 4–23, 1927. Edited by the economic and financial section. Geneva, 1927, 2 v. (League of Nations publications 1927. II. 52.)

For the reports prepared for this conference consult the "Guide to the Preparatory Documents of the Conference" (L. of N. pub. 1927. II. 41) and "Guide to the Documents of the conference" (1927. II. 41a). The final report of the conference is reprinted in Annals of American Academy of Political and Social Science, November, 1927, v. 134, pp. 174–206; Economist, May 28, 1927, supplement.

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Proceedings of the Preliminary conference with a view to concerted economic action held at Geneva from February 17 to March 24, 1930. Geneva, 1930. (L. of N. pub. 1930. II. 17.)

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For a report of the conference of representatives of economic councils and research institutes of 15 countries in Geneva, March 2–4, 1931, in connection with the preparatory work of the League of Nations' investigation into the causes of economic depressions, *see* New York Times, March 5, 1931, p. 12.

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"Solving the dilemma," pp. 297–317.

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Is a planned world economy practicable?
Commerce and Finance, December 24, 1930, v. 19, pp. 2350–2352.

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Economist, May 12, 1928, v. 106, pp. 963, 964.

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COLORADO.—Industrial Commission. *Eleventh report, for the biennium December 1, 1928, to November 30, 1930. Denver, 1931. 38 pp., folders.*

Besides data as to awards under the State workmen's compensation act, the report gives the weekly wages of women in various occupations in the city and county of Denver.

OHIO.—Department of Industrial Relations. Division of Labor Statistics. *Report No. 26: Rates of wages, fluctuation of employment, wage and salary payments in Ohio, 1929. Columbus, 1930. 444 pp.*

PENNSYLVANIA.—Department of Labor and Industry. *Special Bulletin No. 31: Hours and earnings of men and women in the hosiery industry. Harrisburg, 1930. 119 pp., charts.*

PORTO RICO.—Mediation and Conciliation Commission. *Annual report, fiscal year 1929–30. San Juan, 1930. 104 pp. (In Spanish and English.)*

VIRGINIA.—Department of Labor and Industry. *Thirty-third annual report, for the year ending September 30, 1930. Richmond, 1931. 52 pp.*

The industrial statistics in this publication are for the calendar year 1929. Data on wages and hours of labor, taken from the report, are given in this issue of the Labor Review.

WEST VIRGINIA.—Workmen's Compensation Department. *Report, July 1, 1926, to June 30, 1930. [Charleston, 1930?] 252 pp.*

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UNITED STATES.—Department of Agriculture. *Circular No. 142: Analysis of the operations of a cooperative livestock concentration point, by John H. Lister and C. G. Randell. Washington, 1931. 32 pp.*

—— Department of Commerce. *Emergency and permanent policies of spreading work in industrial employment, prepared by the President's Emergency Committee for Employment. Washington, 1931. 6 pp.*

—— —— Bureau of Foreign and Domestic Commerce. *Trade Information Bulletin No. 740: Banking system and practices in France. Washington, 1931. 27 pp.*

Contains, among other things, a description of the cooperative people's banks (*banques populaires*) of France and the cooperative agricultural banks.

—— —— Bureau of Mines. *Bulletin 330: Ventilation of the large copper mines of Arizona, by G. E. McElroy. Washington, 1930. 145 pp., illus.*

A study of the methods and costs of ventilating the copper mines of Arizona, which is part of a general and country-wide survey of metal-mining methods.

—— —— —— *Bulletin 331: Permissible methane detectors, by A. B. Hooker and others. Washington, 1930. 30 pp., illus.*

—— —— Bureau of Standards. *Miscellaneous Publication No. 119: Standards yearbook, 1931. Washington, 1931. 399 pp.*

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—— Department of State. *Publication No. 147: Report of the International Commission of Inquiry into the Existence of Slavery and Forced Labor in the Republic of Liberia, Monrovia, Liberia, September 8, 1930. Washington, 1931. 227 pp.*

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Data on the purposes of different types of vocational schools, taken from this pamphlet, are given in this issue.

—— Federal Farm Board. *Bulletin No. 5: Grain—a guide for organizing local cooperative marketing associations. Washington, 1931. 44 pp.*

—— Library of Congress. *An account of government document bibliography in the United States and elsewhere, by James B. Childs. Washington, 1930. 57 pp. (Revised July, 1930.)*

—— President's Emergency Committee for Employment. *Community plans and action, No. 6: Home gardens for employment and food. Washington, 1931. 8 pp.*

Official—Foreign Countries

CANADA.—Department of Immigration and Colonization. *Report for the fiscal year ended March 31, 1930. Ottawa, 1931. 89 pp.*

—— Department of Labor. *Report for the fiscal year ending March 31, 1930. Ottawa, 1931. 191 pp.; charts.*

Reviews the operation of the industrial disputes investigation act and of the Government annuities act, the fair wages policy, conciliation work, old-age pensions, labor legislation, strikes and lockouts, fatal industrial accidents, the work of the employment service, cooperative societies, and other activities of interest to labor.

COORG (INDIA).—Chief Commissioner. *Report [of the registrar of cooperative societies] on the working of the cooperative societies in Coorg, for the year ending June 30, 1930. Bangalore, 1930. 17 pp.*

Gives data for the central cooperative bank, 180 credit societies, 65 grain marketing associations, 4 purchase and sale societies, and 1 weavers' society for 1928–29 and 1929–30.

FINLAND.—Bureau Central de Statistique. *Annuaire statistique de Finlande, 1930. Helsingfors, 1930. 364 pp.*

Contains statistical information in regard to Finland for 1930, the subjects covered including accidents and accident insurance, strikes and lockouts, labor organizations, cooperation, employment service, wages, wholesale and retail prices, cost of living, etc.

FRANCE.—Ministère de la Santé Publique. *Rapport du Conseil Supérieur des Habitations à Bon Marché, 1928 et 1929. Paris, 1930. 38 pp. (Extrait du Journal Officiel, Sept. 30, 1930.)*

A report of the application of legislation relative to the provision of workingmen's houses in France during the years 1928 and 1929. A report of housing developments receiving State aid in other countries is also included.

GREAT BRITAIN.—Board of Trade. *Statistical abstract for the United Kingdom for each of the 15 years, 1913 and 1916 to 1929. London, 1931. 399 pp. (Cmd. 3767.)*

Includes data relating to accidents, cost of living and wages, profit sharing, trade-unions, strikes and lockouts, cooperative trading societies, unemployment and unemployment insurance, workmen's compensation, and production.

—— Colonial Office. *Colonial No. 56: Information as to the conditions and cost of living in the colonies, protectorates, and mandated territories. London, 1930. 187 pp.*

A manual of information for officials sent by the British Government to the various localities, the subjects covered including clothing, housing accommodations, household requisites, prices, medical and dental treatment available, wages of servants, etc.

GREAT BRITAIN.—Colonial Office. *Further correspondence relating to the position of the sugar industryin certain West Indian colonies and British Guiana. London, 1930. 19 pp. (Cmd. 3745.)*

Data on wages of agricultural labor in Barbados, taken from this report, are published in this issue of the Labor Review.

—— Home Office. *Statistics of compensation and proceedings under the workmen's compensation acts and the employers' liability act, 1880, in Great Britain during the year 1929. London, 1931. 35 pp. (Cmd. 3781.)*

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—— Mines Department. Miners' Welfare Fund Committee. *Ninth report * * *, 1930. London, 1931. 68 pp.; plans, illus.*

—— —— Safety in Mines Research Board. *Paper No. 64: The inflammation of coal dusts—the effect of the presence of firedamp, by T. N. Mason and R. V. Wheeler. London, 1931. 32 pp.; charts, illus.*

—— Ministry of Health. *Widows', orphans', and old age contributory pensions acts, 1925 and 1929: Accounts, 1929. London, 1931. 8 pp.*

INTERNATIONAL LABOR OFFICE.—*Hours of work in coal mines. (Item II on agenda of International Labor Conference, 15th session, Geneva, 1931; Report II.) Geneva, 1931. 205 pp.*

—— *International survey of legal decisions on labor law, 1929 (fifth year). Geneva, 1930. 389 pp.*

—— *Partial revision of the convention concerning employment of women during the night. (Item III on agenda of International Labor Conference, 15th session, Geneva, May, 1931; Report III.) Geneva, 1931. 19 pp.*

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Reviewed in this issue.

—— *Studies and reports, Series C (employment and unemployment), No. 15: Unemployment and public works. Geneva, 1931. 186 pp.*

—— *Studies and reports, Series F (industrial hygiene), No. 13: Silicosis records of the international conference held at Johannesburg, August 13-27, 1930. Geneva, 1930. 692 pp., illus.*

The first part of this volume contains the proceedings of the conference and the second part the papers presented by the delegates dealing with the silicosis or pneumonoconiosis problem of each particular country.

IRISH FREE STATE.—Department of Industry and Commerce. *Report for 1929 in pursuance of section 118 (7) of the factory and workshop act, 1901. Dublin [1930]. 24 pp.*

JAPAN.—Department of Finance. *The thirtieth financial and economic annual, 1930. Tokyo, 1930. 267 pp.; map, charts.*

Wage data from the report are given in this issue.

NETHERLAND EAST INDIES.—Departement van Landbouw, Nijverheid en Handel. Centraal Kantoor voor de Statistiek te Bataviacentrum. *Mededeelingen No. 88: Prijzen, indexcijfers en wisselkoersen op Java, 1913-1929. Bataviacentrum, 1931. 136 pp.; charts. (In Dutch and English.)*

Prices, price indexes, and exchange rates in Java, 1913–1929.

NEW ZEALAND.—Census and Statistics Office. *The New Zealand official yearbook, 1931. Wellington, 1930. 1,006 pp.; maps, charts.*

Includes data relating to accidents, industrial disputes, unemployment, old-age and widows' pensions, production, friendly and building societies, retail and wholesale prices, labor legislation, trade-unions, wages, and hours of labor.

NOVA SCOTIA (CANADA).—Department of Public Works and Mines. *Annual report on the mines, 1930. Halifax, 1931. 322 pp.*

ONTARIO (CANADA).—Department of Mines. *Thirty-ninth annual report, being Volume XXXIX, Part 1, 1930. Toronto, 1930. 200 pp., illus.*

QUEBEC (CANADA).—Department of Municipal Affairs. Bureau of Statistics. *Statistical yearbook, 1930. Quebec, 1930. 460 pp.*

Certain data relating to the cooperative people's banks of Quebec, taken from this yearbook, are given in this issue.

SOUTH AUSTRALIA.—Factories and Steam Boilers Department. *Annual report for the year ending December 31, 1929. Adelaide, 1930. 24 pp.*

The report shows a falling off in the number of factory employees from 27,423 at the end of 1928 to 23,657 at the end of 1929. Approximately two-thirds of this decrease occurred among the male employees aged over 21, whose number fell from 16,385 to 13,840; smaller reductions appeared in each of the other age and sex groupings.

UNION OF SOUTH AFRICA.—Office of Census and Statistics. *Statistics of production: Statistics of factories and productive industries (excluding mining and quarrying) in the Union for the year 1928–29 (Fourteenth Industrial Census, 1930). Pretoria, 1930. xxxi, 74 pp. (In Dutch and English.)*

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ADAMIC, LOUIS. *Dynamite: The story of class violence in America. New York, The Viking Press, 1931. 452 pp., illus.*

AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE. *The Annals, Vol. 154: The insecurity of industry. Philadelphia, March, 1931. 206 pp.; charts.*

AMERICAN COUNTRY LIFE ASSOCIATION. *Rural organization, 1929: Proceedings of the twelfth American country life conference, Ames, Iowa, October 17–20, 1929. New York, 105 East 22d Street, 1930. 186 pp.*

AMERICAN STANDARDS ASSOCIATION. *Safety code for the use, care, and protection of abrasive wheels—American standard. New York, 29 West 39th Street, 1930. 35 pp.*

BARIDON, FELIX E., and LOOMIS, EARL H. *Personnel problems—methods of analysis and control. New York and London, McGraw-Hill Book Co. (Inc.), 1931. 452 pp.*

This volume is designed as a guide in personnel administration work. The "problem" method of discussion has been followed, and the subjects covered include employment; remuneration; labor turnover; health, safety, and working environment; personnel management; training and development of employees; and employee relations. The various topics are discussed both from the general management and the human relations points of view.

BARNETT, H. R. *Man management in chain stores. New York and London, Harper & Bros., 1931. 252 pp.*

BERGLUND, ABRAHAM, AND OTHERS. *Labor in the industrial South. Charlottesville, University of Virginia Institute for Research in the Social Sciences, 1930. 176 pp.; charts, illus.*

The authors, a professor, an associate professor, and a research assistant in the University of Virginia, undertook a study of labor conditions in the new South with a double objective: "First, the presentation of general wage conditions as shown by the books of employing concerns, Federal wage statistics, retail prices of food and other necessaries, and the services rendered by employing concerns in offering other aids to their employees in the forms commonly designated as welfare work; and second, some explanation of these conditions as they result from a new and rapid industrial growth in an environment characterized by traditions associated with a certain kind of agricultural development."

The furniture, lumber, and cotton-textile industries were selected as being fairly typical, and special studies were made of a sufficient number of establish-

ments in each to give a balanced picture of general conditions. Special chapters are devoted to the Southern workers' background, the South in industrial revolution, and the cost of living in the South. The investigations tend to confirm the general conclusion that, making all due allowance for such factors as welfare work, cheap fuel and house rent, and the like, the Southern workers receive lower money wages and work longer hours than any other group of workers of similar size in the United States.

DUTCHER, DEAN. *The Negro in modern industrial society. Lancaster, Pa., 1930. 137 pp. (Privately printed.)*

An attempt to show the trends in Negro population and employment since the emancipation. Information as to occupations is gained chiefly from the census, so that as yet no comprehensive data are to be had beyond 1920. In general, there has been a movement out of agriculture and service occupations into industrial pursuits, and this was especially marked between 1910 and 1920. The change has been coincident with a movement from country to city, and with a migration northward.

ELKIND, HENRY B., M. D., Editor. *Preventive management—mental hygiene in industry. New York, B. C. Forbes Publishing Co., 1930. 234 pp.; charts.*

An adaptation of eight lectures given by as many experts in a successful course to executives in the spring of 1930 under the auspices of the university extension division of the Massachusetts Department of Education, in cooperation with the Massachusetts Society for Mental Hygiene.

FEILER, ARTHUR. *The Russian experiment. New York, Harcourt, Brace & Co., 1930. 272 pp. (Translated from the German by H. J. Stenning.)*

An account of the author's observations while traveling in Soviet Russia.

FRANCQ, GUS., Compiler. *Code of labor and industrial laws of the Province of Quebec and certain Federal laws with rules and regulations concerning their application. Montreal, Mercantile Printing, 1930. 232 pp. (In French and English.)*

GEORGIA, UNIVERSITY OF. *Bulletin, Vol. XXX, No. 8b, Phelps-Stokes Fellowship Studies No. 9: Negro migration, by John William Fanning. Athens, Ga., 1930. 39 pp.; maps, charts.*

HOOVER, CALVIN B. *The economic life of Soviet Russia. New York, Macmillan Co., 1931. 361 pp.*

JEWISH AGRICULTURAL SOCIETY (INC.). *Annual report, 1930.* [*New York*], *1931. 36 pp.*

Reviews the 1930 work of this society whose main purpose is to aid in the colonization of Jews on farms. During the year 73 families were established on farms, and a new project was undertaken—a farm settlement offering to persons with a bent toward farming a chance to enter that field while still retaining their city jobs. A tract of land near New Brunswick, N. J., was divided into farms of 5 and 7½ acres each, and each farm was provided with house, a combination barn and garage, and a poultry yard. The tract will accommodate from 25 to 30 families, but, to start with, only 9 families were selected, each with a capital of $3,000 or more, together with certain qualifications of steadiness and intelligence.

The farm loan department received applications for loans aggregating more than $1,000,000 but owing to scarcity of funds could grant only $244,671, the lowest amount since 1918. At the end of the year the society had farm loans outstanding aggregating $1,377,750.

LARGE, THOMAS. *How to end unemployment. London, John Bale, Sons & Danielsson (Ltd.), 1930. 48 pp.*

LEEDS, MORRIS E., and BALDERSTON, C. CANBY. *Wages—a means of testing their adequacy. Philadelphia, University of Pennsylvania Press, 1931. 79 pp.; charts. (Research studies XI, Industrial Research Department, Wharton School of Finance and Commerce, University of Pennsylvania.)*

Reviewed in this issue.

MASUCCI, LORENZO. *Effective solution of unemployment—causes and remedies. Scranton, Pa., 1931. 27 pp. (Privately printed.)*

M'DONALD, T. P., AND DAVIE, GEORGE. *Handbook of widows', orphans' and old age contributory pensions. Edinburgh and London, Wm. Hodge & Co. (Ltd.), 1930. 104 pp.*

The widows', orphans' and old-age contributory pensions act was passed in 1925 and amended and broadened in its application in 1929. This book is a useful guide to the real meaning of two complicated acts.

METROPOLITAN LIFE INSURANCE CO. *Social Insurance Monograph 1: Unemployment insurance—a summary of some existing governmental and private plans. New York, 1931. 27 pp.; charts.*

MOSER, CHARLES K. *The cotton textile industry of far eastern countries. Boston, Pepperell Manufacturing Co., 1930. 144 pp., illus.*

As a result of his survey of the cotton markets of India, China, and Japan, the author reaches the conclusion that these countries are making increasingly larger provision for their own and their closest neighbors' textile needs, and that in the future the markets of the Far East will be influenced more and more by the cotton-textile output of the Orient.

NATIONAL INDUSTRIAL CONFERENCE BOARD (INC.). *Rationalization of German industry. New York, 247 Park Avenue, 1931. 182 pp.; charts.*

NEW SURVEY OF LONDON LIFE AND LABOR. *Vol. I.—Forty years of change. London 1930. 438 pp.; maps charts.*

Reviewed in this issue.

PEOPLE'S YEARBOOK, 1931. *Fourteenth annual of the English and Scottish Cooperative Wholesale Societies. Manchester, 1931. 336 pp., illus.*

An encyclopedia of information on the cooperative movement of Great Britain and other countries, besides articles on various industrial and economic subjects. Data taken from this report, showing the number of persons employed in the various productive departments of the English Cooperative Wholesale Society, are given in this issue.

PHELPS, EDITH M., Compiler. *The socialization of medicine. New York, H. W. Wilson Co., 1930. 190 pp. (The Reference Shelf, Vol. VII, No. 1.)*

Contains a bibliography, briefs for and against socialized medicine, and reprints of articles on the subject, classified according to the point of view expressed in the article.

RUSSELL SAGE FOUNDATION. Library. *American foundations for social welfare (revised edition, 1930). New York, 1930. 56 pp.*

SHANN, EDWARD. *An economic history of Australia. Cambridge, England, University Press, 1930. 456 pp.*

The author believes that the effort, developed largely since the close of the war, to make Australia a self-dependent and more or less hermit nation is doomed to failure, but that if she will accept facts as they are, her geographic position and relative immaturity offer her a rôle in the world economy of greater importance than that which she has hitherto filled effectively.

SMITH, EDWIN S. *Reducing seasonal unemployment: The experience of American manufacturing concerns. New York and London, McGraw-Hill Book Co. (Inc.), 1931. 296 pp.; charts.*

TILGHER, ADRIANO. *Work—what it has meant to men through the ages. New York, Harcourt, Brace & Co., 1930. 225 pp. (Translated from the Italian by Dorothy Canfield Fisher.)*

TIPPET, TOM. *When southern labor stirs. New York, Jonathan Cape & Harrison Smith, 1931. 348 pp., illus.*

A study of the troubles during 1929 and 1930 in the Southern textile industry. The author's thesis is that what is now going on in that part of the country is practically identical with what went on earlier in the northern industrial centers. "The difference in the two situations is that the current one is much more understandable because of what has already happened in the North and in other parts of the world."

VERBAND DER MALER, LACKIERER, ANSTREICHER, TÜNCHER UND WEISSBINDER DEUTSCHLANDS. *Material für die Gesellenausschussmitglieder bei den Innungen und Handwerkskammern. Hamburg, 1931. 63 pp.*

Contains a review of the labor conditions and relations between employers and employees in the trades named in the title, including conditions of apprenticeship and legislation related to the latter.

WALLACE, WILLIAM. *The riddle of unemployment. London, The Nation and Athenaeum, 1930. 18 pp.*

An effort to reduce the problem of the continuing unemployment in Great Britain to its basic factors, with a discussion of methods by which these factors, when determined, may be combated.

WOOD, LOUIS AUBREY. *Union-management cooperation on the railroads. New Haven, Yale University Press, 1931. 326 pp.*

Reviewed in this issue.

ZENTRALVERBAND DEUTSCHER KONSUMVEREINE. *Jahrbuch, 1930. Vols. II and III. Hamburg, 1930. 708 and 512 pp.*

Detailed statistical data regarding the 1929 operations of the German consumers' cooperative movement, especially the societies affiliated in the Central Union of German Consumers' Societies.